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MASSACHUSETTS VENTURE CAPITAL FAIR '83

★ UMass/AMHERST ★



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The Venture Fair...

A unique way of matching innovative companies with the capital they need to produce and market new products.

MASSACHUSETTS Venture Capital Fair

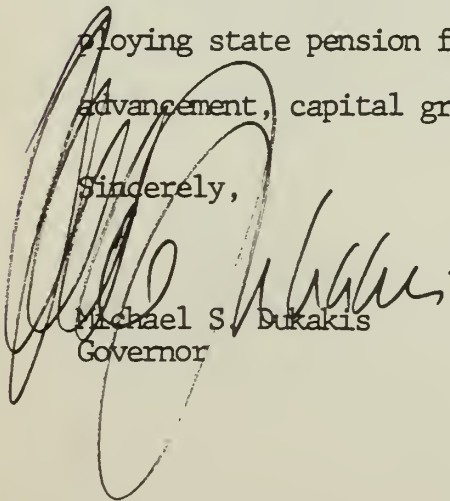
A BUSINESS SERVICE OF THE MASSACHUSETTS DEPARTMENT OF COMMERCE
100 CAMBRIDGE STREET, BOSTON, MASSACHUSETTS 02202

Welcome to the fourth Venture Capital Fair sponsored by the Massachusetts Department of Commerce. This unique event, bringing together emerging companies with financial institutions, also serves the interests of the Commonwealth well, creating meaningful employment and advancing the technological advantage of Massachusetts.

Massachusetts enjoys a long history of the successful marriage of technology and capital, including shipbuilding, shoes, textiles, railroads and mining. In recent years, with the formalization of the venture capital industry, we continue to enjoy the benefits of locally generated industries in computers, communications, medical electronics, biomedical and biotechnology, and genetic engineering.

Recognizing the importance and potential of this positive contribution, the Commonwealth has created its own venture capital firm, Massachusetts Technology Development Corporation, to work with our existing venture capitalists in promoting opportunities. In addition we are now exploring methods of employing state pension funds in creative fashion resulting in technological advancement, capital growth and employment.

Sincerely,


Michael S. Dukakis
Governor

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Venture Capital Fair '83

It is a pleasure to welcome you to the Department of Commerce's fourth Venture Capital Fair, an opportunity for entrepreneurs and capitalists to meet in pursuit of their mutual interests.

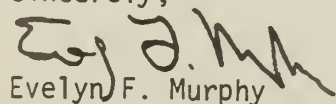
As a result of the three previous fairs, several firms have found the capital necessary to expand their operations, including: a telecommunications company which will relocate from Ithaca, New York, to Chelmsford; a Melrose-based computer office products company; and a Westboro terminal converter company. We also expect that a number of other firms will close negotiations shortly. This infusion of capital will result in additional jobs, tax revenues, and technological advancement.

The Commonwealth is fortunate to possess both a sophisticated venture capital community and a long tradition of entrepreneurial risk taking. Together with our outstanding educational institutions, Massachusetts possesses the ingredients necessary for a growing, dynamic knowledge based economy, which will lead the state, nation and world into the next century.

According to a recent Capital Publishing Company survey, although Massachusetts has only 2.5% of the nation's population, it received 13 percent of venture capital. Such a disproportionate share of the venture funds invested is clearly the direct result of the entrepreneurial skill and technological innovations present in Massachusetts.

The Executive Office of Economic Affairs will enhance and encourage the traits which have characterized the state's economy by directing manpower training programs into high growth occupational fields; providing access to capital for expanding firms through state-sponsored organizations such as the Massachusetts Technology Development Corporation and the Massachusetts Community Development Finance Corporation; and by participating in the development of technology through the Massachusetts Technology Park Corporation.

Sincerely,



Evelyn F. Murphy
Secretary
Economic Affairs

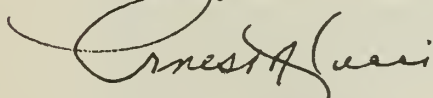
Venture Capital Fair '83

I am pleased that you are able to attend the fourth Venture Capital Fair sponsored by this department.

When one considers that for every \$6,000.00 invested by venture capitalists, one new job is created, the value of this kind of enterprise is self evident. In addition to funding, venture capitalists also provide management know-how and technical assistance to the projects in which they invest money.

Our greatest resource in Massachusetts is human capital. The skilled and knowledgeable people of our state are the key to our success. I am confident that this day will prove to be an excellent introduction to that principle and an enriching experience for all participants.

Sincerely,

A handwritten signature in dark ink, appearing to read "Ernest A. Lucci". The signature is fluid and cursive, with the first name "Ernest" being more prominent.

Ernest A. Lucci
Commissioner
Department of Commerce

Venture Capital Fair '83

Welcome to the Venture Capital Fair sponsored by the Office of Financial Development of the Department of Commerce. We have made every effort in our selection process to provide a representative cross section of firms, including communications and computers, biotechnology, process control, and basic industry.

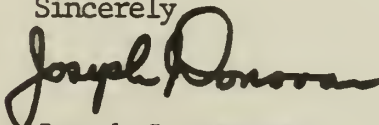
To assure the highest quality of service and efficiency, the Department of Commerce has consolidated access to financial assistance into one office. This office provides five fundamental services which include:

- 1 - Information on public and private financial sources.
- 2 - Advice to firms seeking capital.
- 3 - Liaison with the financial community.
- 4 - Evaluation of proposals for financing.
- 5 - Assistance in packaging and negotiating financing for client companies.

I am enthusiastic about our association with the financial community and hope we can be of assistance to you in the future. We have recently compiled a comprehensive Directory of Financial Resources, listing all state and federal programs aimed at capital formation, and will forward copies to you upon request.

Thank you for joining us. I hope the day will be beneficial to you and your business.

Sincerely



Joseph J. Donovan
Director
Office of Financial Development

Venture Capital Fair '83

VENTURE CAPITAL FAIR

SCHEDULE

April 20, 1983

8:00 - 8:20 A.M.	Registration
8:30 - 8:50 A.M.	Opening Remarks: Ernest A. Lucci Commissioner Department of Commerce
8:50 - 12:10 P.M.	General Session: Joseph J. Donovan Director Office of Financial Development Presentations by Participating Companies
12:10 - 12:20 P.M.	Sign-up for Scheduled Discussion Sessions
12:20 - 1:25 P.M.	LUNCHEON SPEAKER Evelyn F. Murphy Secretary Economic Affairs
1:30 - 2:00 P.M.	First Session
2:10 - 2:40 P.M.	Second Session
2:50 - 3:20 P.M.	Third Session
3:30 - 4:00 P.M.	Fourth Session
4:00 - 5:00 P.M.	SOCIAL HOUR

Venture Capital Fair '83

VENTURE CAPITAL FAIR

CRITERIA FOR FIRMS SEEKING CAPITAL

1. Firm is or will be marketing a product.
2. Firm is established with maturity reflected in the existence of a working business plan and current financial statements.
3. Firm has a potential annual growth rate of 15% and an anticipated pre-tax profit margin of 10 - 15% of sales.
4. Firm is seeking capital in the general range of \$200,000 to \$3,000,000.
5. Firm's basic operations are in Massachusetts.

Please note:

Several start up situations may be included in the program.

MICRO SENSORS, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: *MICRO SENSORS, INC.*
ADDRESS: *NEW ENGLANDER INDUSTRIAL PARK*
HOLLISTON, MASSACHUSETTS 01746
PHONE: *617 - 429-6685*

EXECUTIVES IN ATTENDANCE: *John S. Piso* *Richard W. Carbeau* *J. Clinton Caban*
President *Executive V.P.* *V.P. Marketing*

MAJOR COMPANY PRODUCTS: *Microprocessor based Monitoring Systems for on-line and off-line Quality Control Applications*

NUMBER OF YEARS IN BUSINESS: *10*

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
14 Employees \$800,000

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	<i>300,000,000</i>	<i>309,000,000</i>	<i>318,000,000</i>
Firms Expected Share of Market \$	<i>2,500,000</i>	<i>8,500,000</i>	<i>17,200,000</i>

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	<i>443,000</i>	<i>741,000</i>	<i>800,000</i>	<i>2,475,000</i>	<i>5,200,000</i>
- % pre-tax profit of sales	<i>(53,000)</i>	<i>(98,000)</i>	<i>(144,000)</i>	<i>197,000 (8%)</i>	<i>1,088,000 (2)</i>
- Total liabilities	<i>515,000</i>	<i>882,000</i>	<i>1,050,000</i>	<i>993,000</i>	<i>1,284,000</i>
- Tangible net worth	<i>57,000</i>	<i>(89,000)</i>	<i>(275,000)</i>	<i>467,000</i>	<i>1,083,000</i>
- How much capital requested?	<i>Company has recently raised \$625,000 to repurchase control from parent company and retire debt, and is now seeking an additional \$500,000 to complete initial financing and to finance additional growth.</i>				
- How will financing be used?	<i>Increase staffing in marketing and engineering, fund working capital during anticipated rapid growth.</i>				
- What round of financing is this?	<i>1st</i>	<i>2nd</i>	<i>x</i>	<i>3rd</i>	

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.



MICRO SENSORS INC. NEW ENGLANDER INDUSTRIAL PARK, ROUTE 126, HOLLISTON, MASS. 01746 617-429-6685

April 12, 1983

INVESTMENT OPPORTUNITY

BACKGROUND

Company was formed during 1972 to further develop computer and transducer technology for quality control application to the textile industry.

Since 1980, a subsidiary of a quality control instrument producer.

Recent developments in the company's microcomputer based technology afford it the opportunity to penetrate plastics, fiber optics, glass, paper and tobacco industries.

Company has recently raised \$625,000 to repurchase control from parent company and retire debt, and is now seeking an additional \$500,000 to complete initial financing and to finance additional growth.

BUSINESS

Technology

Company has developed a full line of complementary uniformity measurement products used in the plastics and textile industries and is poised for future growth through the promotion of:

- *Selectable frequency, hybrid design, capacitance transducers with a sensing zone immune to ambient temperature and humidity.*
- *Fully developed dedicated microcomputer to serve as control unit and monitoring station for up to eight transducer production units.*

Products

Currently used by leading synthetic fiber producers in the production and quality control of synthetic filament fibers in the textile and other related industries, as well as by specialized segments of the plastics and textile processing industries in the production of extruded hollow tubing and fibers for medical and other critical end uses.

These products are used to measure and/or control one or more of the following parameters:

- *Fiber mass and/or dimension (denier, weight, thickness).*
- *Moisture content and evenness of chemical finishes or other additives.*
- *Thermo-dynamic stress/strain (an indication of molecular orientation and crystallinity).*

BUSINESS

Products (cont.)

Design of these products is modular and relies on input of data from one or more of the company's transducers to a computer which processes the input, displays and/or prints results and/or feeds back signals to control the process.

In addition to the many on-line monitoring and/or control systems, the company also has incorporated their patented transducer technology in a variety of off-line instruments typically used in the quality control and product development laboratories of textile fiber and plastics processing plants.

New Product

The company has recently introduced a microprocessor based mass and moisture monitor which should allow the company to become an important factor in quality and process control instrumentation for the production of: textured polyester, nylon, fiberglass and other thermoplastic yarns; optical fibers; cigarette and textile end use tow; precision glass tubing; plastic tubing; tape; wire manufacturing; etc., etc.

Market Size

The market for the company's products is estimated to be in excess of \$500 Million Dollars.

COMPETITION

Competition is limited or non-existent in many of the key areas the company has chosen for early penetration of its products.

The technology is proprietary in nature, often protected by strong patents; and continually improved through extensive R & D and applications engineering.

The well conceived hardware is enhanced by a fully developed line of software, computers and systems capabilities.

Since there is little competition, price pressure is not normally a problem and gross margins are continually being improved.

OPERATIONS

Company operates from a modern, 11,000 square foot leased facility.

Products are assembled primarily from widely available electronic components, sub-assemblies and a series of proprietary transducers.

The company has 14 non-union employees, with an average of five years service. Management has extensive applicable industry training and a strong background in necessary technologies.

FINANCIAL

The company has absorbed high product design and development costs and is now passing into a profitable growth phase.

Products have been standardized and marketing and continuing development efforts now emphasize the more profitable products which can be sold into the most attractive growth market areas.

Costs are under control and company sales will have reached sufficient volume to provide a small profit during fiscal year ending June 30, 1984. Significant volume and profit increases are forecast thereafter.

<u>Balance Sheet</u>	<u>9 Months Ending 3/31/83</u> (\$000)
<u>Assets</u>	
Current	\$563
Fixed & Other	92
Total	<u>\$655</u>
<u>Liabilities</u>	
Current	\$265
Long Term	691
Total	<u>\$956</u>
Net Worth	(\$301)

FORECAST & HISTORIC

Company's business plan projects sales and profits for five years as follows:

		<u>Fiscal Year Ending June 30 (\$000)</u>							
	1981	1982	1983	1984	1985	1986	1987	1988	
Revenues	443	741	830	2,475	5,200	8,450	12,300	17,250	
Net Profit/Loss	(53)	(98)	(145)	193	615	935	1,427	2,022	

INVESTMENT OPPORTUNITY

During February 1983, the company raised \$625,000 to purchase stock from parent, retire debt, and hire Chief Financial Officer. To complete Phase II of this financing the company is currently seeking \$500,000 in additional equity to fund working capital during projected rapid growth.

CUSTOM COMPUTER SYSTEMS, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: CUSTOM COMPUTER SYSTEMS, INC.

ADDRESS: 302 Boston Post Road
Wayland, Massachusetts 01778

PHONE: (617) 358-5858

EXECUTIVES IN ATTENDANCE:

Pervez A. Zaki - President
Nandu Marketkar - Director Engineering

MAJOR COMPANY PRODUCTS:

Portable Business Computers
3270/3770 SNA & BSC software and LAN software

NUMBER OF YEARS IN BUSINESS:

2½

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

12

MARKET DATA:

	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	1 billion	6 billion	
Firms Expected Share of Market \$	25 million	150 million	

FINANCIAL DATA:

	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	150,000	611,000	200,000/1st Qtr.	2,000,000	25,000,000
- % pre-tax profit of sales	35%	45%		15%	25%
- Total liabilities		36,000	none		
- Tangible net worth		321,000			
- How much capital requested?	2,000,000				
- How will financing be used?	Manufacture and market CCS products.				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

CUSTOM COMPUTER SYSTEMS, INC. (CCS), a Massachusetts corporation founded in November 1980 has been engaged in design, development and sales of customized hardware and software. In its second year of business CCS showed a 400% growth with revenues of over \$600,000 and profits of 45%.

For a young company CCS is in a unique position. It has highly qualified management, sales/marketing and technical teams in place. Management experience comes from mini and micro computer system manufacturers. Sales and marketing staff possesses experience in the retail and distribution of small and medium size personal and business computers. Technical group consists of both hardware and software expertise for the design and manufacturing of computer systems. Part of this group specializes in communications systems with expertise in protocol emulation and Local Area Networks. Such combination of technical skills is vital for the long term success. Future computer manufacturers will need to provide a complete system solution including system inter connect capabilities.

CCS is developing two portable 16-bit microprocessor based professional/business computers, SNA and BISYNC software packages, and I/O software for operating system (MS/DOS). Design and development of both the systems as well as the SNA and BISYNC softwares are well underway and the manufacturing process is scheduled to initiate in June '83. CCS also plans to develop Local Area Network (LAN) software and support for multi tasking operating system. First computer, its operating system, as well as the SNA and BISYNC software will be announced in July '83 and the shipments are scheduled to start in October '83. Second computer and its operating system will be introduced in the first quarter of '84 and LAN software in the 2nd quarter of '84.

Contrary to typical portable units with dimensions of 16"x19"x9" or larger and weighing over 30 lbs., CCS computers are packaged as a briefcase weighing under 12 lbs. including a 500K floppy and a keyboard. Built into the system is: upto 512K of program memory, dot addressable color graphics capabilities, ASYNC, BISYNC and Parallel ports, TV and external monitor connectors, capability to connect to an expansion chassis and room for a 2nd floppy or hard disc.

CCS intends to offer a complete system at an extremely attractive price which will include the hardware, operating system, word processing, spread sheet, data base and BASIC. All the application software will be sourced from independent software companies. CCS systems have been designed to enable the user to use a vast amount of software available in the market today.

CCS represents an investment opportunity in a billion dollar market growing at an annual rate of 64% and projected to exceed six billion dollars by '86. With \$2 million investment CCS expects to become profitable by January '84 and achieve \$25 million in sales and \$6 million in profits by the end of '84.

A.0 THE TEAM

CCS is a shirt-sleeve organization staffed by highly qualified and dedicated professionals capable of solving the problems that arise when a product is to be developed and marketed in the shortest possible time. Members of the team bring years of management, technical, marketing and sales experience from companies such as DEC, Data General, Commodore, Raytheon, Honeywell, WANG, Harris, Data Terminal Systems, etc.

A.1 The President

Mr. Pervez Zaki brought over eight years of management experience in design, development, implementation and marketing of computer hardware and software when he founded CCS in 1980.

Since founding CCS, Mr. Zaki has taken the company from its inception to a successful over \$600,000 business which boasts profits of 45% and an annual growth rate of 400%. Orders booked for customized hardware/software during the first quarter of '83 exceed half a million dollars.

In addition to general management, Mr. Zaki also has sales and marketing responsibilities for the company.

Prior to founding CCS, Mr. Zaki was with Data General for five years and held various management positions. His responsibilities included:

- . Marketing of custom software and hardware.
- . Management of software P&L center.
- . Cost center management of hardware/software groups.
- . Technical and personnel management of hardware/software engineers.
- . Interfacing with personnel department to develop company policies.

Previous employments include management and technical positions with Digital Equipment Corporation, Keytronics and Washington State University.

Mr. Zaki holds a Masters Degree in Electrical Engineering from Washington State University, a bachelors degree in Electronics Engineering and has taken a number of Business Administration courses in Project/Department Management, Finance, Marketing and Sales.

Mr. Zaki has published papers covering the Market of Small Business Systems, Word Processing and Office of the Future.

A.2 Vice President Communications Systems

Dr. Pradip Gohain brought eleven years of experience in management and design of communications systems and real time software when he joined CCS in 1981.

Since joining CCS, Dr. Gohain has put in place a team of highly qualified communications software engineers with extensive experiences in the communications and networking. Members of the team have played key roles in the design and implementation of various BSC, SNA, X.25, X.21, TELETEX and LAN products for Honeywell, Raytheon, BBN, Wang, Data General, Incoterm, and Harris. These individuals have been the chief architects and leaders of their groups while developing communications software before joining CCS. Under Dr. Gohain's guidance this group has provided consultation teams in the communications software area to Nixdorf, Bunker Ramo, etc. For CCS clients this group has specified, designed and developed BSC and SNA products as well as done quality assurance for communications software. Dr. Gohain has managed this successful branch of CCS and also provided technical assistance to his staff.

Dr. Gohain is well known and highly respected in his field. Prior to joining CCS, he worked for Honeywell, Information Systems Division for five years as a Manager and Senior Staff Analyst for the communications software department. His responsibilities included:

- . Department Management.
- . Intra department coordination.
- . Lead architect/designer for Distributed Network Products.
- . Development of original SNA concept and design documents for the cluster controllers.
- . Development of functional and design specifications for SNA and BSC 3270 as well as 3770 RJE products.
- . Design and implementation of 3274/3276 SNA/SDLC Cluster Controller Node emulation and 3770 RJE emulation.
- . Design and implementation of 3270 BSC emulation package.
- . Design and implementation of Local Forms Control package.

Previously, for six years, Dr. Gohain was with Raytheon where he held a number of project management and technical positions. He designed and implemented a number of products such as:

- . 3270 applications.
- . Intelligent terminal software.
- . Computer Display Channel.
- . Text editing software, etc.

Dr. Gohain holds a Ph.D. and a Masters degree in Electrical Engineering from Virginia Polytechnic Institute and a Masters degree in technology.

A.3 Vice President Engineering Software

Mr. Anil Mhatre brought ten years of managerial and technical experience in computer hardware/software to CCS when he joined the company in 1981.

Since joining CCS, Mr. Mhatre has put together a team of highly qualified engineers and engineering programmers who possess a unique talent of both hardware and software expertise. Members of the team have designed mini and micro computer hardware, real time software, microcode, firmware and diagnostic software for Data General, Digital Equipment Corporation, Computervision, Honeywell, Data Terminal Systems, etc. These individuals played key roles in their previous positions and had department, product and project responsibilities. Under the supervision of Mr. Mhatre this group has provided consultation teams in hardware development, firmware, real time software, data base management software and diagnostic software. Mr. Mhatre has managed this profitable section of the company and provided technical assistance to his staff. Mr. Mhatre is a highly capable technical manager with excellent talent to motivate his staff.

Before joining CCS, Mr. Mhatre was with Data General Corporation for four years where he held various technical and managerial positions. Some of his responsibilities included:

- . Management of microcode, firmware, diagnostic software and real-time software sections.
- . Designed and developed system reliability/verification software in a stand-alone environment as well as in distributed networks and communications systems.
- . Designed and developed software and hardware to reduce down time and to minimize field maintenance costs.
- . Developed hardware and software to increase manufacturing productivity by reducing test time.
- . Designed systems which verify their integrity at the power up time and on demand by performing a self diagnosis.
- . Designed and developed communications software for multi-channel communications systems.
- . Developed device drivers for Data General's Operating Systems.

Previously, for six years, Mr. Mhatre had held project management and technical positions with Alphabetic Corporation and Graphic Systems Inc. Some of the functions performed by Mr. Mhatre were:

- . Logic design and development of a number of microprocessor based computerized photo-typesetting machines.
- . Implementation of system and applications software for the typesetting industry.
- . Implementation of wordprocessing and editing software.

Mr. Mhatre holds a Masters degree in engineering from University of Cincinnati and another Masters degree in Engineering from the Indian Institute of Technology, Bombay.

SELVA SYSTEMS INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Selva Systems Inc.

ADDRESS: 167 Worcester St., Wellesley, MA 02181

PHONE: (617) 431-7576

EXECUTIVES IN ATTENDANCE: A. R. Pearlman, J. Kirsch

MAJOR COMPANY PRODUCTS: GL/M Graphic Language for Microcomputers and other software

NUMBER OF YEARS IN BUSINESS: One and one half years

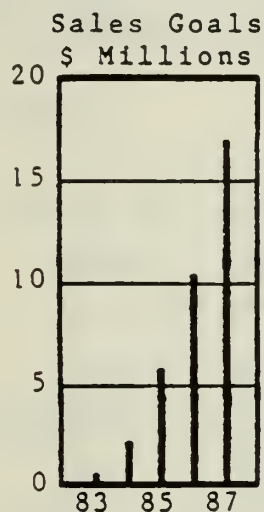
SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
4 0

<u>MARKET DATA:</u>	1983 1 year	1985 3 years	1987 5 years
Industry Market Size \$ <u>Million</u>	\$704	\$1342	\$2566
Firms Expected Share of Market \$	0.45	5.6	16.8

<u>FINANCIAL DATA:</u>	2 years ago	last year	current	projected 1 year	projected 2 years
- Gross sales	--	--	\$454,000	\$2,100,000	\$5,600,000
- % pre-tax profit of sales			(loss)	18%	22%
- Total liabilities	\$25,970	\$141,249			
- Tangible net worth					
- How much capital requested?	\$1,225,000 (in stages)				
- How will financing be used?	Working Capital and Capital Equipment				
- What round of financing is this?	1st <u>X</u>	2nd _____	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

SUMMARY



The Company

Selva Systems, Inc. is a small company, founded in 1980, and active since late 1981. Up to now it has been financed by a small group of private investors, and over \$200,000 has been expended in developing a unique software product line.

The Product Line

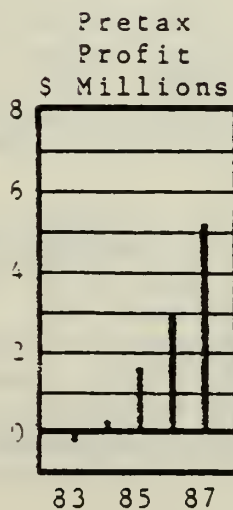
GL/M, which allows word processors to print pages of integrated text and graphics, is nearly ready for market introduction. Other software products to exploit and enhance GL/M are planned for later introduction.

Financing Sought

The company is now seeking \$225,000 in Stage 1 & Stage 2 investment financing to test-market the product, and an additional \$1,000,000 in Stage 3 and Stage 4 financing for full-scale marketing and support operations of GL/M and to bring out a number of related "enhancement" products.

Size of Market

There are over 400,000 "Letter Quality" word-processing printers sold per year at a user cost of \$800 to \$5,000 each, and the number is increasing at about 30% per year. Users of these printers constitute our primary target market.



Marketing

On the basis of a few "New Product" releases in trade publications, a number of inquiries have been received for GL/M, plus a few purchase orders.

The company has shown GL/M to a number of software distributors who have expressed interest in carrying the product in their line. It is expected that the company can reach from 500 to 1000 retail outlets through such distributors if and when the company sells through them. Agreements with such distributors are contingent on the company's willingness and ability to support the product through advertising and in-house support programs. And the company's ability to support the product is contingent on the company's success in raising capital as described above.

Staff and Facility

There are four full-time employees at present, including the founder and President, Mr. Pearlman. The company presently occupies about 900 square feet in a small suite of offices in the Greater Boston suburbs. It is expected that the company will add personnel and move to a larger facility before the end of 1983.

Venture Capital Fair '83

THE COMPANY AND ITS BUSINESS

GENERAL OVERVIEW

Selva Systems, Inc. is a small company, incorporated under the laws of the Commonwealth of Massachusetts in 1980, which has been developing proprietary microcomputer software products, and is now seeking financing for the purpose of bringing these products to market.

REVENUE AND PROFIT OBJECTIVES

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Number of Products in Line	3	6	8	10	12
Net Revenues (\$000)	475	2100	5600	10800	16800
% Direct Cost of Goods Sold	28	28	28	27	26
% Marketing Expense	53	26	19	18	17
% General & Administrative	33	19	15	13	12
% Research & Development	32	18	11	15	15
	=====	=====	=====	=====	=====
% Pretax Earnings (loss)	(46)	9	28	27	30
Pretax Earnings (Loss)(\$000)	(216)	193	1544	2916	5040

NATURE OF BUSINESS

The microcomputer software business is part of the computer industry. Computers need programs in order to be able to do useful things. Programs which are recorded on magnetic disks are called "software," and proprietary products, which consist of prerecorded programs and instruction books (user manuals), are widely sold as "software packages."

In a sense, the software business is akin to a publishing business, since the products of both kinds of businesses are information--printed or pre-recorded on a physical medium--and readable by a human or by a machine.

The actual business of an independent software supplier consists of developing software products (programs and documentation), producing and selling software packages, supporting the software by revising and updating the software as needed, and assisting dealers, distributors, and end-users.

NATURE OF MARKET

The business software market is large--over \$500 Million per year--and is growing at a rate of over 40% per year. The market is fragmented, with thousands of producers offering several products each, and with the largest producer commanding less than 7 percent of the market. The retail price for software packages is typically in the range of \$100 to \$500, with some exceptions.

The demand for software is fueled by the perception of business and professional users that microcomputers, or personal computers as they are often called, are tools for increasing human productivity in such applications as word-processing, financial modelling, accounting, communications, and computer-aided design and manufacturing (CAD/CAM).

One of the fastest growing segments of the software market is graphics software--and the Company is focusing on a specialized corner of this market segment for its initial line of product offerings.

PRODUCTS

The Company's products are innovative graphics software products for business and professional users. The initial products are:

- 1) GL/M and GL/Graph, which create high-quality printed graphics using word-processing printers, and
- 2) Graph/Array, a management-information graphics product.

MANAGEMENT AND KEY PERSONNEL

Alan R. Pearlman, the principal founder of the company, President, director, and largest stockholder, is an entrepreneur who has previously founded two high-technology companies which became industry leaders in their field.

While the Company's present staff is small, the members of the staff are highly qualified for their positions.

- Christopher Jans, Chief Software Engineer,
- Susan Stocker, Product Support Manager, and
- Patricia O'Hagan, Office Manager and Marketing Services Manager,

are all competent, energetic, experienced, and creative professionals in their respective fields.

The company is now involved in a search for additional managerial talent with experience in software marketing, general business administration, and corporate finance.

DIRECTORS

Mr. Alan Pearlman, the principal founder, is a director, and his background is described above and elsewhere in this document.

Mr. Bruce Cichowlas, Stockholder, Director and Technical Adviser, is an entrepreneur with considerable experience in the field of computer systems, computer hardware, and software design.

Mr. James Geisman, Director and Business Adviser, is a technical marketing consultant in the Greater Boston Area, with degrees in both technology and business, and experience in the field of software marketing.

Mr. Robert Johnson, Director and Business Adviser, is Financial Vice-President of a high technology company in the Greater Boston Area.

Dr. Jordan Kirsch, Stockholder, Director, and Consultant, is a scientist and entrepreneur who has founded a number of technology-related businesses.

IMAGE TECHNOLOGY METHODS CORPORATION

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Image Technology Methods Corp.

ADDRESS: 103 Moody Street, Waltham, MA 02154

PHONE: (617) 894-1720

EXECUTIVES IN ATTENDANCE: John Newitt, Pres.

MAJOR COMPANY PRODUCTS: Electro optical instruments

NUMBER OF YEARS IN BUSINESS: 5+

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
5-6 plus part-time; approx. \$260K sales

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$2 million	\$5 million	\$10 million
Firms Expected Share of Market \$	25%	50%	50%+

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	\$162,696	\$207,175	\$260,000	N/A	N/A
- % pre-tax profit of sales	6.4%	6.7%	7.0%		
- Total liabilities	\$ 73,079	\$ 89,879	\$ 95,000		
- Tangible net worth	\$ 18,309	\$ 43,435	\$ 80,000		
- How much capital requested?	\$750,000				
- How will financing be used?	For expansion from scientific into industrial field				
- What round of financing is this?	1st <u>X</u>	2nd _____	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

BRIEF COMPANY HISTORY

IMAGE TECHNOLOGY METHODS CORP. has developed and fully amortized instrumentation product line for scenic data acquisition, processing and control (for laser robotics, thermal imaging and film densitometry) by selling its prototypes to government agencies, military test facilities, research foundations, and large aerospace systems primes. More recently, company has provided some exotic equipment systems to industry, more specifically to the metal treating and cement industries.

Product line is fully developed and has been extensively tested over development period in a variety of applications with virtually no service returns from field failure.

A new management and marketing effort is required to serve the developing industrial market. This requires a new step function from present capability base which is capable of providing technical application support, service for field equipment, training, instruction for sales personnel and initial market direction with statistics and live sales leads.

Present staff consists of CEO (BS in EE, MS in management), Engineering Manager (BS/EE, MIT), Chief Development Engr (non-degreed specialist in electronic circuits), two technicians plus full time clerical/administrative and part time drafting and bookkeeping plus staff consultants.

All fabrication is subcontracted with final assembly and test of instruments conducted on premises.

MILLIS CORPORATION

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Millis Corporation (Including Sentron, a Division of Millis Corp.)

ADDRESS: 140 Dover Road, Millis, Mass. 02054

PHONE: (617) 376-2611

EXECUTIVES IN ATTENDANCE: Dr. William Gasko, President, Ronald C. Visser, Vice Pres. Mfg.

MAJOR COMPANY PRODUCTS: Microwave Components, Fiber Optic Sensors

NUMBER OF YEARS IN BUSINESS: 14

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

36

1.7M

MARKET DATA:

	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$50M	\$100M	\$250M
Firms Expected Share of Market %	6%	10%	20%

FINANCIAL DATA:

	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 year</u>
- Gross sales	\$.476M	\$.623M	\$1.7M	\$3.5M	\$5.7M
- % pre-tax profit of sales		-40%	17%	15 - 19%	15 - 19%
- Total liabilities					
- Tangible net worth				Approx. .200M	
- How much capital requested?	\$3-4M				
- How will financing be used?		Capital Equipment, R & D, Receivables, Building			
- What round of financing is this?	1st <u>x</u>	2nd _____	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

SENTRON INITIALLY WILL ADDRESS THESE MARKET OPPORTUNITIES, WHICH ARE BASED ON A COMMON FIBER OPTIC TRANSDUCER TECHNOLOGY:

MEDICAL

- IN VIVO FIBER OPTIC BLOOD PRESSURE TRANSDUCER MARKETED OEM THROUGH A FORTUNE 200 MEDICAL ELECTRONICS COMPANY.

INSTRUMENTS

- LABORATORY INSTRUMENT WITH DIGITAL READOUT USING FIBER OPTIC SENSOR PROBES FOR TEMPERATURE AND PRESSURE MARKETED THROUGH LABORATORY SUPPLY DISTRIBUTORS.

DEFENSE

- CONTRACT RESEARCH AND DEVELOPMENT FOR DEFENSE ELECTRONICS AND AEROSPACE COMPANIES TO DESIGN AND TEST FIBER OPTIC SENSORS, MULTIPLEXORS, AND FIBER TELEMETRY SYSTEMS FOR MILITARY APPLICATIONS (E.G., SONAR, SEISMIC SENSING, LOCAL AREA NETWORKS)

MARKET PLANNING

MEDICAL

- LONG, BUT FUNDED, DEVELOPMENT (3 YEARS)
- POTENTIAL EXPLOSIVE GROWTH IN YRS. 4 - 10
- POTENTIAL DOMINANT MARKET SHARE
- STRONG CASH GENERATOR IN OUT-YEARS
- OEM AGREEMENT IS PIVOTAL

INSTRUMENTS (LAB)

- RAPID DEVELOPMENT (1 YEAR)
- NARROW DISTRIBUTION CHANNEL
- MODERATELY PRICE INELASTIC
- CHIEF BENEFIT IS RFI/EMI TOLERANCE, SO NARROW NICHE

DEFENSE

- EARLIEST SOURCE OF REVENUE FROM CONTRACT RESEARCH AND DEVELOPMENT FOR AEROSPACE AND DEFENSE ELECTRONICS COMPANIES
- SOURCE OF COMMERCIAL PRODUCT SPIN-OFFS
- SOME PRODUCTION BEGINNING YEAR 4

LOCAL AREA NETWORKS (LONG TERM)

- PRODUCTS & TECHNOLOGY EVOLVE FROM FUNDED AEROSPACE WORK.
- SENTRON TECHNOLOGY FOR MULTIPLEXING HAS GREAT TECHNICAL ADVANTAGES.
- PHENOMENAL GROWTH IN LATE-1980'S.
- NEEDS A GREAT DEAL OF CASH TO BE A CREDIBLE ENTRANT AND HOLD MARKET SHARE IN COMMERCIAL COMMUNICATION.

MARKET SIZE

- GNOSTIC CONCEPTS ESTIMATES THE TOTAL MARKET FOR FIBER OPTIC CABLE AS:
 - 1982 \$ 75 MILLION
 - 1986 \$ 425 MILLION
 - 1987 \$1,100 MILLION
- KESSLER ESTIMATES THE TOTAL MARKET FOR FIBER OPTIC SENSORS AS:
 - 1981 \$ 12 MILLION
 - 1991 \$ 179 MILLION
- SENTRON BELIEVES THAT THESE MARKET SIZES ARE VERY CONSERVATIVE. FOR EXAMPLE, IN 1991 THERE IS A PROJECTED \$200 MILLION MARKET FOR MEDICAL FIBER OPTIC SENSORS ALONE, BASED ON CURRENT SALES OF ELECTRICAL MEDICAL TRANSDUCERS.

FEATURES OF SENTRON FIBER OPTIC SENSORS

- USES LIGHT, RATHER THAN ELECTRICITY
- SAFE - NO FIRE OR EXPLOSION HAZARD OR LETHAL VOLTAGES
- MINUTE SIZE
- IMMUNITY TO RFI/EMI
- INERTNESS
- CORROSION RESISTANCE
- INEXPENSIVE
- TEMPERATURE STABILITY
- NUCLEAR RADIATION TOLERANCE
- WIDE DYNAMIC RANGE
- ABILITY TO NETWORK AND MULTIPLEX
- DISPOSABILITY

SENTRON'S SENSOR TECHNICAL COMPETITIVE ADVANTAGES

INTERNAL MECHANICAL AMPLIFICATION

MANUFACTURING TECHNIQUE FOR BUILDING PRECISE, COMPLEX INTERNAL STRUCTURES IN GLASS. THIS ALLOWS MECHANICAL AMPLIFICATION IN THE SENSOR TO MAKE IT MUCH MORE SENSITIVE THAN COMPETING DESIGNS.

SIZE

FOR A GIVEN SENSITIVITY, SENTRON'S SENSOR CAN BE MUCH TINIER THAN COMPETITORS'. FOR EXAMPLE, THE SENTRON 1 -INCH SOUND SENSOR HAS THE SAME SENSITIVITY AS A 30 -FOOT NAVY MODEL.

COST

" FOR A GIVEN SENSITIVITY, THE DETECTION AND READOUT CIRCUITRY CAN BE MUCH LESS PRECISE AND LESS EXPENSIVE.

MULTIPLEXING

SENTRON CAN MULTIPLEX THE OUTPUTS OF MANY SENSORS ON TO A SINGLE FIBER USING SIMPLE TECHNIQUES. THIS REDUCES THE TOTAL COST OF COMMUNICATIONS FIBER AND REDUCES THE COST PER SENSOR OF THE DETECTION AND READOUT CIRCUITRY.

SENTRON COUPLING AND MULTIPLEXING TECHNOLOGY COMPETITIVE ADVANTAGES

- SENTRON HAS A PATENT AND PROPRIETARY PROCESS POSITION ON COUPLING AND SPLICING FIBER OPTIC CABLE. THIS TECHNOLOGY ALLOWS:
 - USING LOW-LOSS, HIGH BANDWIDTH SINGLE MODE FIBER.
 - FIELD SPLICING OF SINGLE MODE FIBER, HERETOFORE VERY DIFFICULT, EVEN IN THE LABORATORY.
 - COUPLING TO SINGLE MODE FIBER WITHOUT CUTTING THE LINE. THIS PROBABLY NEVER COULD BE DONE WITHOUT SENTRON'S TECHNIQUES.
- THE SENTRON COUPLER IS BASED ON LAP, RATHER THAN BUTT, COUPLING OF OPTICAL FIBERS.
- MULTIPLEXING OF MANY SIGNALS ON ONE FIBER IS DONE WITH DIFFERENT WAVELENGTHS. SENTRON'S COUPLERS CAN INCORPORATE NARROWBAND OPTICAL FILTERS TO SELECT OR INSERT A GIVEN WAVELENGTH.

BIO RATIONAL TECHNOLOGIES, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Bio Rational Technologies, Inc.

ADDRESS: 218 Sudbury Road, Stow, MA 01775

PHONE: (617) 562-7629 (home) (617) 793-5579 (lab)

EXECUTIVES IN ATTENDANCE: Pamela Weathers, Pres., Kenneth L. Giles, Treas., Al Maffie, Business Mgr., Michael Goldberg, Consultant-in-attendance, Douglas Campbell, Consultant

MAJOR COMPANY PRODUCTS: (See: footnote #1, enclosed) Technology...advanced biology and developments in combination with engineering sciences such as: Fermentation, Microbial Genetics and automation of scientific processes

NUMBER OF YEARS IN BUSINESS: Incorporated in 1982. Bio Rational Technologies is a first-stage entity.

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

Currently, the executive-core staff numbering three - each of whom has made cash and services investments without compensation.

MARKET DATA: 1 year 3 years 5 years

Industry Market Size \$ Fully described in the Business Plan, available on request

Firms Expected Share of Market \$" " " " " " " "

FINANCIAL DATA:

	Year-1	Year 2	Year 3	projected 4th year	projected 5th years
- Gross sales	\$15,000	\$87,500	\$443,500	\$2.287 million	\$3.674 million
- % pre-tax profit of sales	(\$358,000)	\$259,000)	(\$44,000)	\$1.9 million	\$3.29 million
- Total liabilities	none				
- Tangible net worth	Undefined at this point				
- How much capital requested?	\$358,000	\$259,000	\$44,000	None	None
- How will financing be used?	(See: footnote #2 enclosed)				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

Venture Capital Fair '83

Bio Rational Technologies, Inc

- Note 1. We have, presently, five "products" in development, each of which is technology-based, combining recent advances in biology with engineering systems. These biotech processes are adapted to the cash-flow and profit generation of certain major-market entities. These global entities are in Food Processing, Municipal and Industrial Water Purification, new technology concepts and plant sciences commercially attractive to the pharmaceutical and horticultural industries. Patents have been applied for, or, are in preparation for several of these inventions. One of these is under license negotiations with an overseas company, the income of which is projected under year 1.
- Note 2. The financing will be used to fund the establishment of the working facilities including staffing, purchase of lab and equipment supplies, advances related to securing and renovating of facility. Projected cost: \$200,000.
- Yr. 1
- Yr. 2 Consolidation of staff, lab and marketing, and on-going lab expenses. Projected cost: \$350,00.
- Yr. 3 The activities in years 1 & 2 will be concerned with refining the basic research and other feasibility confirmation.
- Yr. 4 A positive cash-flow is projected for years 4 and 5.
- Yr. 5 Net Income Projections:
- | | Yr. 4 | Yr. 5 |
|--|---------|---------|
| | \$1.2 M | \$4.5 M |
- Note 3. Since 1980, the Company executives acted informally as industry and academic consultants. Their collective activities have ranged from yeast and plant genetics to fermentation, distillation design and renewable energy resources. These experiences have been used to critically identify the problems and needs of wide-ranging commercial markets-of-opportunity. Innovation, invention, successes and the further potential for employing even newer concepts have all come together to encourage the applicants to further the incorporation of Bio Rational Technologies for the purpose of becoming an aggressive commercial entity in an exploding field whose time has come.

Venture Capital Fair '83

NAME: Pamela J. Weathers

ADDRESS: 218 Sudbury Road
Stow, MA 01775

BIRTHPLACE
AND DATE: St. Louis, MO; June 7, 1947

NATIONALITY: U.S.

EDUCATION: B.S. Biology; 1969; Marquette University, Milwaukee, WI
Ph.D. Botany/Plant Pathology; 1974; MSU/DOE Plant Research
Laboratory, Michigan State University, E. Lansing, MI.

PROFESSIONAL EXPERIENCE:

1982 - present: Principle, BioRational Technologies, Inc.

1981 - present: Consultant to New England Renewable Fuel, Worcester, MA.

1979 - present: Research Scientist, Dept. of Life Sciences, Worcester
Polytechnic Institute, Worcester, MA 01609

1978 - 1979: Visiting Lecturer, Biology; College of the Holy Cross
Worcester, MA 01610

1976 - 1977: Assistant Professor, Biology; Wellesley College
Wellesley, MA

1974 - 1978: Research Scientist, Biology; Wellesley College
Wellesley, MA

ACADEMIC HONORS: Allied Chemical Fellow, Predoctoral; 1971 - 1974.

SOCIETY MEMBERSHIPS: American Association for the Advancement of Science
American Society for Microbiology
Sigma Xi
American Women in Science
Women in Cell Biology

TECHNICAL EXPERTISE:

Gas Chromatography
Column Chromatography
Amino Acid Analysis
Disc Gel Electrophoresis
Thin Layer Chromatography
General Protein Chemistry
Enzymology
Immunological Techniques
Algal Cell Culture

Automated Peptide/Protein Sequencer
Electron Microscopy
High Voltage Electrophoresis
Circular Dichroism
Liquid Scintillation Counting
Saccharification and Fermentation
Nitrogen Fixation Technologies
Electron Paramagnetic Resonance Spec-
troscopy

Venture Capital Fair '83

PUBLICATIONS:

Jost, M., Jones, D.D., and P.J. Weathers. 1971. Counting of gas vacuoles by electron microscopy in lysates and purified fractions of Microcystis aeruginosa. Protoplasma 73:329.

Weathers, P.J. 1974. The gas vacuole membrane of Microcystis aeruginosa: A partial amino acid sequence. Ph.D. Thesis Dissertation, Michigan State University.

Simon, R.A., and P.J. Weathers. 1976. Determination of the structure of the novel polypeptide containing aspartic acid and arginine which is found in Cyanobacteria. Biochem. Biophys. Acta 420:165.

Weathers, P.J., Jost, M., and D.T.A. Lamport. 1977. The gas vacuole membrane of Microcystis aeruginosa: A partial amino acid sequence. Arch. Biochem. Biophys. 178:226.

Weathers, P.J., Chee, H.L., and M.M. Allen. 1978. Arginine catabolism in Aphanocapsa 6308. Arch. Microbiol. 118:1.

Weathers, P.J., and M.M. Allen. 1978. Variations in short term products of inorganic carbon fixation in exponential and stationary phase cultures of Aphanocapsa 6308. Arch. Microbiol. 116:231.

Allen, M.M., and P.J. Weathers. 1980. The structure and composition of cyanopycin granules in the Cyanobacterium Aphanocapsa 6308. J. Bact. 141:959.

Allen, M.M., Hutchinson, F., and P.J. Weathers. 1980. Cyanophycin granule polypeptide formation and degradation in the Cyanobacterium Aphanocapsa 6308. J. Bact. 141:687.

Miller, J.E., Weathers, P.J., McConville, F.X., and M. Goldberg. 1982. Saccharification and ethanol fermentation of apple pomace. Biotech. and Bioeng. Symp. 12:183-191.

Weathers, P.J., Danielli, J.F., Bradley, P.B., Cheetham, R.D., Hebb, D.M., Miller, J.E., and R.L. Pesano. 1983. The nitrogen economy of a green alga. (Submitted for publication).

Weathers, P.J., and D.M. Hebb. 1983. The nitrogen economy of a green alga. II. Patterns of nitrogen movement during nitrogen starvation. (In preparation).

NUMEROUS ABSTRACTS FOR PRESENTATION AT SCIENTIFIC MEETINGS OF:

American Society for Microbiologists
American and Canadian Society of Plant Physiologists
International Symposium of Photosynthetic Prokaryotes
American Biophysical Society
Biotechnology and Bioengineering Symposia

Venture Capital Fair '83

NAME: Kenneth L. Giles

ADDRESS: 5 Hubbardston Road
Princeton, MA 01541

BIRTHPLACE
AND DATE: London, England - June 24, 1944

NATIONALITY: British

EDUCATION: B.S. Botany 1966 University of Durham, England
Ph.D. Biology 1969 Dalhousie University, Canada

PROFESSIONAL EXPERIENCE:

1979 - Present Professor and Head
Department of Biology and Biotechnology
Worcester Polytechnic Institute
Worcester, MA 01609

1977 - 1979 Associate Professor
Department of Genetics
Iowa State University
Ames, Iowa

1969 - 1977 Research Scientist
DSIR
Palmerston North, NEW ZEALAND

1969 Post-doctoral Teaching Fellow
Dalhousie University
Halifax, Nova Scotia, CANADA

Honorary Lecturer: Massey University, Palmerston North, New Zealand (1970 - 1977). Taught undergraduate courses in botany, genetics and microbiology; graduate courses in plant development.

SOCIETY MEMBERSHIPS:

American Society of Plant Physiology
American Institute of Biological Sciences
Tissue Culture Association
International Association for Plant Tissue Culture
(New Zealand National Correspondent, 1974-1975)
Sigma Xi
Society for Economic Botany

Venture Capital Fair '83

FELLOWSHIPS AND GRANTS:

- French Government Travel Award to attend the First Congress on Plant Protoplasts, Versailles, France (1972).
- British Council Grant-in-Aid to work for two months at the University of Nottingham, England (1974).
- NATO Fellowship to travel to, and attend, the "Conference on Plant Cell Hybridization", Liege, Belgium (1974).
- University Research Support Grant to set up my laboratory in Ames, Iowa (1978) - \$25,000.
- Iowa Corn Promotion Board grant to study "Nitrogen Fixation Potentiality of Corn Root Microbial Association" (1978) - \$40,000.
- Bio-Energy Council grant to investigate the "Effects of Mycorrhizal Fungi in Short Rotation, Intensive Poplar Plantations" (1979) - \$33,000.
- National Science Foundation grant to study the "Uptake and Expressions of Ti Plasmid of Agrobacterium tumefaciens by Plant Protoplasts" (1980) - \$110,000.
- National Institutes of Health (Biomedical Research Support Grants):
(1980) - \$3,235. - To equip DNA cloning and microchemistry facility;
(1981) - \$2,075. - For DNA sequencing of plasmid and plant genomes;
(1982) - \$3,500. - For video image analysis in microscopy;
(1982) - \$2,253. - To equip laboratory with Specialized Glassware Dish-washer.
- Whitehall Foundation grant to investigate "Nitrogen Fixation in Eukaryotic Microalgae" (1981) - \$113,000.
- Eppley Foundation grant to support Postdoctoral Research Associate to study the "Domestication and Genetic Improvement of the Peach Palm" (1982) - \$50,000.
- NATO Award to travel to, and attend, the Advanced Summer Institute on Biomass Utilization, Lisbon, Portugal (1982).
- Institute of Food and Agricultural Sciences (University of Florida) for the "In Vitro Culture of Palm Tissue for Investigations of Lethal Yellow Mycoplasma-like Bacterial Diseases" (1982). - \$87,000; with Dr. Richard Litz, University of Florida.

CURRENT GRANT SUBMISSIONS:

- Agency for International Development for "The Domestication of the Acacia for Fuelwood Plantations Using Cell and Tissue Culture Techniques" (1982) - \$150,000.

Venture Capital Fair '83

- National Science Foundation equipment grant for purchase of Nitrogen Analyzer needed in research on "Nitrogen Fixation in Eukaryotic Microalgae" (1982) - \$14,900.
- U.S. Department of State for the "Application of In Vitro Culture and Mycorrhizal Association to Crop Improvement in the Palms" (1982); with Dr. Michael Balick, New York Botanical Gardens.

PUBLICATIONS: (General)

- Giles, K.L. and von Maltzahn, K.E. 1967. Interaction of red, far-red and blue light in cellular regeneration of leaves of Mnium affine. Bryologist 70:312-315.
- Giles, K.L. and von Maltzahn, K.E. 1968. Spectrophotometric identification of phytochrome in two species of Mnium. Can. J. Bot. 46:305-306.
- Giles, K.L. 1970. The phytochrome system, phenolic compounds, and aplanospore formation in a lichenized strain of Trebouxia. Can. J. Bot. 48:1343-1346.
- Giles, K.L. 1971. Redifferentiation and regeneration in bryophytes: A selective review. N.Z. J. Bot. 9:689-694.
- Giles, K.L. 1971. The control of chloroplast division in Funaria hygrometrica. I. Patterns of nucleic acid, protein and lipid synthesis. Plant and Cell Physiol. 12:437-445.
- Giles, K.L. and Taylor, A.O. 1971. The control of chloroplast division in Funaria hygrometrica. II. The effects of kinetin and indoleacetic acid on nucleic acids. Plant and Cell Physiol. 12:447-450.
- Giles, K.L. and Sarafis, V. 1971. On the survival and reproduction of chloroplasts outside the cell. Cytobios. 4:61-74.
- Giles, K.L. 1972. An interspecific aggregate cell capable of cell wall regeneration. Plant and Cell Physiol. 13:207-210.
- Giles, K.L. and Sarafis, V. 1972. Chloroplast survival and division in vitro. Nature 236:56-68.
- Giles, K.L. 1973. Complementation by protoplast fusion using mutant strains of maize. Plant and Cell Physiol. 15:281-285.
- Giles, K.L. 1974. Complementation studies of maize mutants using protoplast fusion techniques. Maize Cooperative Newsletter 23:1558.
- Giles, K.L. 1974. The potentialities of somatic hybridization - Consequences of nudity. Mechanisms of regulation of plant growth. R. Soc. N.Z. Bull. 12:573-580.

BUSINESS REVIEW, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Business Review, Inc.

ADDRESS: 88 Needham St., Newton, MA 02161

PHONE: (617) 332-3223

EXECUTIVES IN ATTENDANCE: John Raffin
Jean P. Raffin
Stephen G. Scott

MAJOR COMPANY PRODUCTS: Audio Cassette Tape Subscription Service providing semi-monthly updates of developments and trends in business.

NUMBER OF YEARS IN BUSINESS: One and one-half years

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
Part Time: 8 to 10
Full Time: 3 to 12 (see below)

MARKET DATA: 1 year 3 years 5 years

Industry Market Size \$

Firms Expected Share of Market \$ Refer to Business Plan

<u>FINANCIAL DATA:</u>	2 years ago	last year	current	projected 1 year	projected 2 years
- Gross sales	-	\$8,334	\$60,000	\$1,863,000	\$5,158,000
- % pre-tax profit of sales	-	0			
- Total liabilities	-	\$115,078	\$170,000	\$2,387,000	\$4,382,000
- Tangible net worth	-	(\$-106,972)	(\$-90,000)	(\$-524,000)	\$776,000
- How much capital requested?			\$500,000		
- How will financing be used?		To subsidize additional marketing programs, (i.e. direct mail, advertising, special promotions, group sales, etc.) continuance of subscription fulfillment; overall operations.			
- What round of financing is this?	1st _____	2nd <u>x</u> _____	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

BUSINESS REVIEW BUSINESS PLAN EXECUTIVE SUMMARY

BUSINESS REVIEW is an answer to the time and availability problem all busy executives face in trying to stay up-to-date with the expanding world of business information and trends. It provides that market with a 60 minute audio cassette twice monthly on a subscription basis. It gives subscribers a synopsis of the significant business news reported by over 50 publications, plus exclusive interviews with experts on important issues. All of this is cross-referenced by a table of contents to allow for more in-depth study of any one of the 25-30 features on each tape.

The BUSINESS REVIEW concept has been developed into a full-fledged business entity. We are now in production with our thirteenth tape. We have completed some phases of the test marketing. And we believe we have a viable service, and a viable business enterprise. The Business Plan for BUSINESS REVIEW will show you how this business enterprise has all the positive attributes of a publishing business from the standpoint of cash flow (advanced payment gives us float) and very few of the negative aspects of spiralling costs as the circulation increases (it costs very little more to produce thousands of tapes than it does one tape).

Let's review for you what BUSINESS REVIEW is:

1. BUSINESS REVIEW is a semi-monthly audio cassette tape series that provides the busy executive with a useful and time-saving summary of vital business information (trends, special reports, new developments) as reported by over 50 leading business, news and general interest publications. In addition, BUSINESS REVIEW seeks out influential business leaders and conducts exclusive interviews. Three or four are part of every edition.
2. BUSINESS REVIEW provides the busy executive with hundreds of ideas on a regular basis. It is issued the second and fourth Monday of each month, complete with a table of contents as a handy cross-reference to the original articles and for more in-depth coverage of the topics.
3. Sample editions of BUSINESS REVIEW are enclosed for your own critical appraisal. We think you will find the tapes interesting, professionally produced and of extremely good quality. They certainly are sound editorially since their own editorial strength is the combined strength of the various publications that are included in each tape.

Venture Capital Fair '83

As a business proposition BUSINESS REVIEW does have a few unique aspects that are worthy of note.

1. The basic concept has been fully developed to the point where we are now producing a 60 minute cassette every two weeks. There will be some product improvement as the need arises. However, we think you'll agree the concept has been refined to the point where it is very marketable.
2. BUSINESS REVIEW's initial test marketing has been completed. We selected the Greater Boston market to conduct the test marketing using very limited media exposure to help develop awareness, some direct mail to about 1,000 and some presentations to 20 leading corporations. This test market activity led us to the next stage of corporate development and market testing.
3. In May we began testing six distinct mailing lists with two different mailing packages and two pricing levels to help determine price and promotional offers. We mailed to 30,000 prospects. While results were not totally satisfactory we are now planning a revamped test. We estimate a 1% return for approximately \$72,000 in sales for the upcoming test.
4. The marketing plans for the balance of the year do include media exposure, both regionally and nationally and further direct response efforts.
5. Obviously, the development plans for the corporate structure for the balance of the year include some additional staffing to handle the volume and prospective growth of the business.
6. The basic research and development has been completed. We developed the basic concept in mid 1979 and spent time refining the idea further. A similar product has been marketed by someone else in Denver in the meantime. Early in 1980 that company came up with a product called "Newstrack". It is nowhere near as fine a product as ours and offers only limited exposure to new ideas compared to BUSINESS REVIEW. Competitive advantages versus Newstrack.
 - a. BUSINESS REVIEW is written and produced by broadcast journalism professionals for high quality and easy listening.

Venture Capital Fair '83

Newstrack's format is based on announcers reading articles verbatim. This can become tiring, uninteresting and a waste of valuable time. Written material is meant for reading not listening.

- b. Each BUSINESS REVIEW edition is 60 minutes in length and contains an average of 25 separate topics from about 20 different publications, giving broad exposure to fresh, usable ideas. Over the course of a year a subscriber will be exposed to hundreds of important topics. Newstrack averages only 12-14 features in 90 minutes.
- c. BUSINESS REVIEW provides more than business topics, we seek out exclusive interviews and commentaries from key people making the news. This gives subscribers an added perspective beyond what's reported in writing. Newstrack does none of this.
- d. BUSINESS REVIEW costs \$240.00 per year versus \$195.00 for Newstrack. (Our price was raised after we observed no price sensitivity in an early direct mail test.) Our subscribers receive much more information for the price.

Despite this Newstrack has grown from 4,000 subscribers to over 10,000 in the past year.

BUSINESS REVIEW is both an exciting new business concept and one that promises to be extremely rewarding financially. We have developed a detailed business plan complete with financial pro-forma statements for the first year as well as projections for the first five years. Following is a summary of the main aspects of the business plan.

The detailed business plan includes the following topics:

- o The market
- o Phases of the marketing program
- o Test marketing program
- o Details of the national marketing program (national, regional media, and special market opportunities plus corporate and group markets)
- o Detailed financial plan including sales projections, operating costs, marketing costs, cash flow projections and five year sales and expense projections.
- o Growth and future projections for the business enterprise.

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CONSUMER PRODUCTS

American Motors Dealers Of New England, American Tourister, Avco Modular Homes, Boston Globe, Churny Cheese, Datamarine - Digital Marine Instruments, Dodge - New England, Dunham Shoes, Emergency Medical Systems, Flagstaff Corporation, Hood Yacht Systems, Irving Levitt Meat Company, New Balance Athletic Shoes, Norelco Consumer Products, Northeast Division, Raleigh Industries of America, Stanley Tools, Street & Smith Publishers, Saltus Reading Systems, Tall Oaks Village Condominiums, Westville Homes.

INDUSTRIAL PRODUCTS & SERVICES

ATF-Davidson, Auburn House, Avco Aerospace Systems Divisions, Avco Computer Service, Avco Printing & Publishing, Cramer Electronics, Cramer Video, G.E. Aircraft Gas Turbines, Gradco/Dendoki, Honeywell, Honeywell Office Automation Systems, Hotels of Tradition, McCormack & Dodge Corporation, McRam Information, Medical Information Technology, Metcalf & Eddy, Memory Technology, Nashua Computer Products, Nashua Office Products, Ricoh of America, S.D. Warren Paper, Strategic Planning Institute, Summit/Dana Corp., Westinghouse Air Conditioning.

RETAIL

Bradford Furniture, Deerskin Trading Post, Hallmark Furniture, Peabody Office Furniture, Store 24, Streeter & Quarles.

OTHER

American Diabetes Associates, New England Conservatory of Music, Political Campaigns 1966 - 1978, WEEI-AM.

KEY PERSONNEL PROFILES

JOHN RAFFIN PRESIDENT

John Raffin is the originator of the BUSINESS REVIEW concept and serves as President. His responsibilities include general administration and financial management for the company. John is also President and Chairman of The Board of Johnson-Raffin Advertising and will provide creative and marketing consulting services.

John Raffin has been in the advertising business for over 25 years. A solid professional, John offers agency clients an invaluable storehouse of experience in both consumer and industrial markets, incisive analytical skills and a sharply-honed marketing sense.

After holding marketing and advertising management positions with major U.S. corporations - General Electric and Westinghouse - John joined a well-known international agency, BBDO. As account supervisor, he managed a variety of accounts representing businesses such as insurance, computers, utilities, tools, newspapers, automobile dealers, printing papers, and banking.

After a stint managing these major accounts and developing new business for BBDO, John applied his considerable experience and expertise to Johnson-Raffin, which started in November, 1970.

John earned his BS in marketing and advertising from the University of Massachusetts.

Following is a list of the companies he has worked for and accounts he has serviced:

CLIENT SIDE EXPERIENCE

G E - Aircraft Gas Turbines, G E - Aircraft Accessory Systems; Westinghouse - Air Conditioning, Air Handling, Electronic Precipitators; Moog Valve - Electro Servo Systems.

ADVERTISING ACCOUNT EXPERIENCE

CONSUMER SERVICES

American Boating Association, Artrium Restaurant, Avis Rent-A-Car, Boston 200 Bicentennial, Cape Cod Bank & Trust, Colonnade Hotel, Connecticut Light & Power Company, Druker Company, Essex County Bank, Kaufman & Broad Real Estate Development, KCM Industries, Liberty Mutual Insurance Company, Mass./Conn. Electric Utilities, McNeil Associates, Microcharter, Inc., National Commercial Bank, New England Life Insurance Company, Quechee Lakes, Vermont, Ryan Elliot Real Estate, Saugus Cooperative Bank, SDK Computer Services, Southern New England Telephone Company, United States Air Force (recruitment), Zachary's Restaurant.

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STEPHEN G. SCOTT
VICE PRESIDENT/MARKETING DIRECTOR

Steve Scott serves as Vice President of BUSINESS REVIEW with direct responsibilities for supervising the production of finished tapes and implementing the marketing, advertising and promotion programs in support of the finished product.

For the past six and one half years he has served as Vice President and Account Supervisor for Johnson-Raffin Advertising. Steve has a 17 year track record for effective account management and offers the added benefit of extensive media knowledge. Steve's experience encompasses both consumer and industrial accounts in such areas as packaged goods, electronics, insurance, travel and recreation, retailing, and printing equipment.

Steve is a thorough-going professional and his meticulous approach to strategy, planning and execution assures clients of marketing and advertising programs that are rational, effective and fiscally sound.

Steve's impressive background includes experience as an account manager at Compton, well-known international agency and vice president of Provandie, Eastwood & Lombardi, a major Boston agency.

Steve is a graduate of Dartmouth College with a BA in history.

Following is a list of the advertising accounts he has served:

ADVERTISING ACCOUNT EXPERIENCE

CONSUMER PRODUCTS AND SERVICES

Boston Mutual Life Insurance Company, Boston 200 Bicentennial, Colonnade Hotel, Commercial Union Assurance Companies, Connecticut Light & Power Company, Mass. Dept. of Commerce & Development, Massachusetts General Hospital (recruitment), Quechee Lakes - Vermont, Raytheon's Historical Foundation, R.M. Bradley-Brookline Housing Associates, Emergency Medical Systems, Hotels of Tradition, Proctor & Gamble Company - Ivory Bar Soap, Ivory Liquid, Gleem Toothpaste, Duncan Hines Cakes, Raleigh Industries of America, Saltus Reading Systems, Saf-T-Lyte, Security Photo Corp., Tall Oaks Village Condominiums, The Winery, Zachary's Restaurant.

INDUSTRIAL PRODUCTS & SERVICES

ATF-Davidson, Auburn House, Cramer Electronics, Cramer Video, Ditton, Gradco/Dandoki, Galileo Electro-Optics Corporation, Honeywell Office Automation Systems, Metcalf & Eddy, Nashua Office Products, Strategic Planning Institute.

RETAIL

King's Department Stores, Purity Supreme.

OTHER

American Diabetes Association, Greater Boston Heart Association, Political Campaigns .

ANNE-MARIE ROWAN
EDITOR, WRITER, ON-TAPE TALENT

Anne-Marie Rowan is the supervisor of editorial selection, script writing and composition of each production tape. She also serves as one of the regular voices on each tape.

Anne-Marie brings an extensive background in broadcast news journalism covering all phases of the business. Her experience includes news gathering, editing, production and on-air anchor reporting for WHDH and WITS Radio in Boston and WCBS Radio in New York. In addition she was anchorperson, reporter, field film producer for a variety of news, special events and interview programs on WJAR-TV in Providence. And during the 1968-72 period she worked for CBS Television News as associate producer for news, political and special reports programming. Her unique style has won a memorable place in the Boston market. Anne-Marie has scored at the top among listeners in eastern New England when asked to rate the most recognized news announcers in this area.

She is a partner of JTA Communications, a company providing creative, production and communications counsel to corporations with special emphasis on audio-visual projects and programs.

JOHN TREWORY
PRODUCTION SUPERVISOR

John Treworgy is responsible for all aspects of finished taped production including: coordination and selection of talent, studio recording, sound affects, mixing as well as the duplication of cassettes from the master tape. In addition, he is involved in the editorial selection process.

John brings a diverse mix of talent to BUSINESS REVIEW. An educator and practitioner in the field of communications, he teaches at the Boston University School of Public Communications. He has been associated with several audio-visual production companies and also, has been a media consultant to companies, schools and public agencies.

Currently, John is President and partner in JTA Communications, specializing in a full range of corporate and public affairs communication projects. JTA offers its clients consulting and creative services as well as complete production capabilities with special emphasis in audio-visual programs.

CONTROL TECHNOLOGY CORPORATION

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Control Technology Corporation

ADDRESS: 82 Turnpike Road, Westboro, MA 01581

PHONE: (617) 366-9668

EXECUTIVES IN ATTENDANCE: Kenneth Crater, President
Martin E. McGowan, Vice President-Operations

MAJOR COMPANY PRODUCTS: Programmable Controllers, Factory Automation

NUMBER OF YEARS IN BUSINESS: 8 years

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
30 \$1,700,000

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$950,000,000	\$2,100,000,000	\$3,050,000,000
Firms Expected Share of Market \$	\$4,700,000	\$20,000,000	\$50,000,000

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	\$1,100,000	\$1,100,000	\$1,700,000	\$4,700,000	\$9,350,000
- % pre-tax profit of sales			10%	20%	30%
- Total liabilities					
- Tangible net worth					
- How much capital requested?			\$500,000		
- How will financing be used?			to fund growth		
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

CONTROL TECHNOLOGY CORPORATION -- 1983 PROFILE

Control Technology Corporation was founded in 1975 by Kenneth C. Crater in Westboro, Massachusetts. Primarily an electronics production and R&D oriented contracting firm at the start, the corporation has since developed a proprietary product line of state of the art modular control components and electronic machine controls that are winning a fast-growing share of the market for industrial programmable controllers. This is due in part to the extensive impact of market research on the design process, a strong commitment to customer service, and an equally strong commitment to quality control.

I. PRODUCT DEVELOPMENT

Control Technology introduced its first line of proprietary products, the 800 series, in 1981. Series 800 modules were designed to be programmable, sequential, digital, solid state systems aimed at the low end of the market for controllers. The products have been consistently well received; user feedback has shown high marks for reliability, flexibility, and ease of use. Companies in Control Technology's market for the 800 series include Sprague Electric, Polaroid, and Union Carbide. As an applications example, Sprague Electric uses the 800 system to control the assembly of electronic components. Union Carbide uses it to control the folding and packaging of

Glad Bags.

Without a doubt, the most important side effect solicited and generated by the successful marketing of the 800 series by Control Technology was an enormous amount of end user input. Control Technology was able to translate this input into the design of the programmable controller users said they wanted but didn't have, the model 2020 Industrial Programmable Controller. The ability to analyze the market and react quickly to its needs created almost an instant demand for the 2020.

II. DESCRIPTION OF CURRENT PRODUCT LINE

800 OEM CONTROL MODULE	An economical 8-output sequential controller, with sequenced programmed in PROM memories.
801 OEM CONTROL MODULE	A powerful, multi-program sequential controller. 8 outputs, 8 limit switch inputs, remote time-adjust capability.
811 CONTROL INSTRUMENT	Pushbutton-programmable sequential controller for product development, research, test, and end use applications.
815 TIME MODULE	A 4-channel programmable controller for synchronizing operations to the time of day.
816 TIME CONTROL SYSTEM	A complete time control system in a sturdy NEMA 1 steel enclosure.
822A POWER MODULE	A complete noise-immune power system for use with 800/801. 3 amps of current at 24 VDC.
834 RELAY OUTPUT MODULE	A 4-channel, 10 amp relay module to interface 800 series controllers to a wide variety of loads.

2020 PROGRAMMABLE CONTROLLER

A powerful 256-step sequential controller with 24 inputs, 16 outputs.

2030 EXPANSION MODULE

Doubles the input and output capabilities of the model 2020.

2020P PROGRAMMER

An English language, fully prompted programmer for the 2020.

Control Technology also, of course, manufactures a wide range of peripherals and accessories compatible with its product lines, allowing them to customize systems according to user needs.

III. MARKETING DEVELOPMENT

Control Technology markets its products through a network of approximately 25 distributors in the United States, Canada, and Europe. Distributors are supported by guaranteed fast delivery and extensive marketing and technical support. Control Technology is currently concentrating its marketing effort on familiarizing distributorship personnel with the new product and training them in a "systems" approach to selling it. An integrated systems approach to marketing the 2020 is being used with great success by a number of Control Technology's primary distributors. Applications in process include the complete automation of a \$1.25 MM, 150 foot long assembly line producing hard disks for Xerox Magnetics, inc. of California.

Control Technology has made a major commitment to be a leader in programmable controllers, both technologically and in the marketplace. Combinining state of the art technology with a state of the art management concept, it will meet that

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Kenneth C. Crater, President

Mr. Crater is the co-founder of and the driving force behind Control Technology. He is a self-taught electronics designer. Ken supervises and participates in all areas of company activity, including hardware design, software development, and marketing.

Martin E. McGowan, Vice President Operations

Martin McGowan received his MBA degree from the Harvard Business School. He served as the President of its Financial Accounting Society. In addition he is a Certified Public Accountant with a "Big Eight" CPA firm background. He has previous experience as a management consultant and was the founder (CEO) of a manufacturing business. Presently he serves as the Chief Operating Officer for Control Technology.

F. Steven Crater, Executive Vice President

A co-founder of Control Technology Corporation, Mr. Crater is now primarily involved in the conceptualization and the mechanical and packaging design of our products. A graduate of Ft. Lauderdale University with a bachelor's degree in Scientific and Technical Management, his past experience in the design of industrial machinery and electromechanical control systems is invaluable in the development of appropriate products for machine automation.

Jonathan Miller, Senior Software Engineer

Jon Miller is a graduate of M.I.T. University with a degree in Computer Science. He has worked for Pacer Systems, Inc. designing flight simulator systems; for Instrumentation Labs, Inc. designing operating systems and compilers; and for Citicorp. as an M.I.S. Specialist. Jon is currently responsible for new product development and documentation.

Mark Lombardi, Senior Sales Engineer

Mark Lombardi graduated as a mechanical engineer at the University of Massachusetts, finishing a five year program in three years. His specialties include machine design and kinematics. Currently he is responsible for developing sales and applications out of Control Technology's home office.

Jeffrey S. Schult, Senior Systems Specialist

Jeff Schult is an economist, graduated from Yale University. He has designed marketing strategies for endeavors ranging from U.S. Senate campaigns to the direct mail marketing of Dr. Suess books. He worked under contract for I.B.M. as Technical Support Specialist on their new microcomputer project, the I.B.M. Scientific 9000.

COMPULEX, INC.

sident

processing

me of Sales)

3 years 5 years

ent	projected 1 year	project 2 year
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\$2,840,000 \$5,430,000

15%

market product

ographical information or resumes of

INTRODUCTION

COMPULEX HISTORY: OVERVIEW

In 1978 while engaged in consulting efforts in various aspects of advanced high speed computer architectures, Mr. Panagiotopoulos, the founder and chief executive officer of Compulex, Inc., began to research the feasibility of developing a communications terminal that would store, display and process alphanumeric data simultaneously in English and in Greek.

Preliminary investigation of the scope of the project required that Mr. Panagiotopoulos recruit the assistance of his friend and business associate Mr. Milton Makris. Mr. Makris was at the time deeply involved in microprocessor engineering and was familiar with the general engineering aspects of the proposed product.

An initial investigation was made to identify available hardware devices that could be used in the design of the product. The nature and extent of related software development was also studied carefully.

Parallel to this process of exploration, preparations were being made to establish the business framework within which the product would be produced and marketed. Mr. Barry Silevitch and Mr. Richard Sterling were recruited to address marketing and legal issues respectively. With the increase in workload, Ms. Rita Dominique assumed the immediate duties relating to programming and administrative support.

While establishing the corporate structure, attention was given to the development of a marketable name for the Corporation. The name Compulex was selected to convey a precise image of computing and word or language processing. Further, it appeared concise, simple to market and easily remembered.

By the spring of 1980, after a total effort of nearly seven man-years, a demonstrable prototype had been developed. This product, initially referred to as the Phase I product, was a single user stand-alone system with the ability to store, display and process up to thirty-two different languages.

Mr. Silevitch recognized the need to garner some direct market reaction to the product. He became aware of a major trade show about to take place in Boston ("Type-World", August 24-26, 1980). The show's producer, Mr. Blum, was approached with a description of the Compulex product and asked whether such a product would be appropriate for his show. An enthusiastic response was given. Ultimately, Mr. Blum and his associates were so impressed with the newly designed "ML-100 Multilingual Word Processing System" that they not only recommended that the system be displayed, but that it also be featured at the show via a cover story in the show magazine.

As a result of this feature article, many potential prospects were generated. In addition, a great deal of insight into the needs of the marketplace was obtained. A serious effort to further explore the marketplace was initiated, including customer demonstrations, phone calls, follow up letters and direct mailings.

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MARKET CHARACTERISTICS AND PRODUCT FIT: OVERVIEW

The office automation marketplace into which the ML-100 will be introduced is a \$30 billion a year industry dominated by IBM, Wang, Xerox, and a few others who have substantial resources and experience in addressing market needs.

Office automation has evolved from an era of paper tape storage media with limited editing capability to an era of single key-stroke output, floppy or hard disk storage media, complex CRT editing capabilities and letter quality output.

In addition to such general enhancements, word processing equipment in particular has become smarter, faster, more easily customized to suit user demands and considerably less expensive. Automated multilingual word processing has thus become feasible.

The major companies have each attempted in a limited fashion (principally through modification of existing hardware), to address this rising need, yet none has focused the kind of capital resource or design effort necessary to competently address all of the complexities of multilingual word processing.

By comparison, Compulux is able to offer a multilingual word processing system with all of the major features of existing equipment with the important additional characteristics of speed, adaptability, power and simplicity of operation. The system is software driven, and can thereby overcome many of the difficulties faced by the systems of the majors. Further, Compulux is dedicated to focusing all of its resource and design efforts directly at this single aspect of the word processing marketplace.

In general, there is a new emphasis by smaller companies such as Compulux to develop and employ special applications packages designed to address particular tasks such as inventory, invoicing and payroll. This need for special application packages is particularly acute in the multilingual aspect of the data processing industry since virtually none of the major companies has indicated a desire or intention to provide true software support even to the systems which they have themselves designed.

The potential for success, even for a new entrant into the word processing arena, still exists. The level of technology in existing hardware demands that any new entrant must focus upon a particular market segment and give attention to the least effectively addressed aspect of that market.

Compulux will focus its attention upon particular aspects of multilingual word and data processing and will give full attention to the development of special applications packages.

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In 1981, the principals of the Company, under the direction of Mr. Panagiotopoulos, accomplished the following:

- . Development of a multilingual stand-alone minicomputer based word processing system.
- . Establishment of an improved facility for product development.
- . Recruitment of a highly qualified Engineering staff to assist in advancement of product design.
- . Recruitment of a Sales and Marketing staff.
- . Generation of an initial business plan.

Presently, Compulex anticipates continued improvement of its product while simultaneously developing a source of capital sufficient to support the overall staffing necessary to bring the product successfully to market.

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Christos Panagiotopoulos

I. EDUCATION:

UNDERGRADUATE	Southeastern Mass. University North Dartmouth, MA, B.S.E.E.	1971
GRADUATE	Mass. Institute of Technology Cambridge, MA	1975-76 5.0/5.0

II. EXPERIENCE:

EMPLOYER	Compulex, Inc. Chelmsford, MA	1979 to Present Full time basis
POSITION/ DESCRIPTION	President, and Chief Executive Officer of Compulex, Inc. Responsible for the full coordination of Compulex' Administration, Marketing and Engineering Departments and setting the goals and objectives of the Company. Maximizing the utilization of Compulex' resources in order to achieve the Company's overall objectives.	

EMPLOYER	Tektronix, Inc. Lexington, MA 02173	1977 to 1980
POSITION/ DESCRIPTION	Three years of Marketing and Sales Experience. Provided customer qualification and technical support for pre and post sales activities to customers, managers, salesmen and service group. Responsibilities included the prioritization of the sales support workload for thirteen Sales Engineers. Worked with customers to familiarize them with Computer Development Systems capabilities and their use in sales support sales, service, technical support and management through the use of reports, write ups, conversations, etc. as required. Pre-Sales activities included customer presentations, demo's and seminars. Post-Sales activities included problem solving, customer training, responding to customers', sales engineers and sales managers problems as well as continuous communication with marketing and new product introductions.	

EMPLOYER	Raytheon Company, Missile Systems Bedford, MA	1971 to 1977
POSITION/ DESCRIPTION	As Development Engineer with the Digital Research and Development Laboratory, I had more than seven years' experience in digital signal processing, missile systems guidance, digital equipment simulation, software development and the use of CDC 6700 and UNIVAC 1108 computer systems. Various assignments included the development and implementation of a series of signal processing algorithms in large radar based systems, involvement in high speed mini and micro signal processor architectures, software generation for advanced multimode and pattern recognition signal processing techniques, the use of signal processor architecture to perform matrix manipulation of display data and the extensive use of translators, assemblers and simulator programs.	

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Milton Makris

I. EDUCATION:

UNDERGRADUATE	Pratt Institute B.S.E.E.	1976
GRADUATE	Northeastern University M.S.E.E.	1978 to present

II. EXPERIENCE:

EMPLOYER	Compulex, Inc. Chelmsford, MA 01863	6/81 to Present Part time basis
POSITION/ DESCRIPTION	Co-founder and Executive Officer of the Company. Responsible for coordinating Compulex's engineering activities in setting the goals and objectives of the Company's current and future products.	

EMPLOYER	Honeywell, Inc. Lexington, MA 02173	1979 to present
POSITION/ DESCRIPTION	Responsible for the design and development of second generation FLIR microelectronic chips for low power applications, utilizing a variety of state-of-the-art integrated circuit technological (gate-array, semi-custom and full custom chips). Involved in an inter-company technology transfer of advanced video tracking techniques that led to the design, development and demonstration of a video tracking system for a variety of applications in the area of fire control, reconnaissance applications.	

EMPLOYER	Raytheon Co., Missile Sys. Hartwell Ave., Bedford, MA	1976 to 1979
POSITION/ DESCRIPTION	<p>Responsible for the layout and design of a control processor handling the operation of adaptive signal processor performing signal processing algorithms within a missile.</p> <p>Total design and development responsibility from inception to demo prototype including budgeting and scheduling of a portable CRT monitor capable of displaying graphics and alphanumerics. The monitor was to be used as a troubleshooting tool for a radar missile system.</p> <p>Involved as a committee member for the study of a family of microprocessor modules that would be utilized in the modernization of a radar missile system.</p> <p>Investigate major fault areas in Battery Control Center part of a radar missile system. Analyzed and suggested solutions to these fault areas.</p>	

CHARGED DROPLET SYSTEMS

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Charged Droplet Systems

ADDRESS: 14 Tech Circle, Natick, MA 01760

PHONE: (617) 655-6311

EXECUTIVES IN ATTENDANCE: Kenneth S. Sachar, President John F. O'Donnell, Chairman
Barry Unger, V.P./Marketing Stanley R. Rich, Director
(part-time) G. Keith Funston, Jr., Director

MAJOR COMPANY PRODUCTS: Electrostatic pesticide sprayer which attaches to commercial agricultural spraying systems, allowing crop protection with at least 25% less chemical and pays for itself in a year.

NUMBER OF YEARS IN BUSINESS: 3

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
1 full time and 6 part-time employees/consultants

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$133MM	\$154MM	\$170MM
Firms Expected Share of Market \$	0.03%	2.6%	12%

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	-	-	-	\$40M	\$800M
- % pre-tax profit of sales	-	-	-	(\$234M)	\$20M
- Total liabilities	\$257M	\$22M	\$75M	\$40M	\$160M
- Tangible net worth	(\$29M)	(\$5M)	(\$74M)	\$284M	\$304M
- How much capital requested?			\$800,000		
- How will financing be used?	Product has been developed, successfully tested in laboratory, and seen limited field application. Current financing will be used to produce equipment for extensive field testing at initial customer sites and for commercialization.				
- What round of financing is this?	1st _____	2nd <u>X</u>	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

Charged Droplet Systems, Inc. of Natick, Massachusetts, is preparing for the commercial production and sale of its new electrostatic spraying system. Developed by MIT-trained scientists and engineers, the CDS system is designed for installation on both new and existing air-assisted sprayers. An air-assisted sprayer uses a large fan to propel pesticide-laden droplets into the canopies of trees. They are commonly used in orchards and increasingly in fields where large areas of foliage must be protected. (Over 200,000 such sprayers are currently used in the United States). Chemical costs are among the largest expenses for a grower (over \$125/year/acre in many cases). Electrostatic charging of the pesticide has been shown to increase markedly the amount of pesticide that actually is deposited on the plant surfaces. As a result, the CDS equipment saves a minimum of 25% of pesticide and of labor costs and is said to be able to pay for itself in a single growing season.

The CDS system has been designed to be compatible with almost all types of air-assisted sprayers. Its built-in miniaturized solid-state power supply connects directly to the 12 volt electrical system of the tractor to charge the liquid spray. The CDS unit attaches directly onto the sprayer and can be installed in the field in less than five minutes. Extensive tests have shown that the CDS charged spray wraps around leaves, penetrates thick foliage, and coats stems and the undersides of leaves. The CDS system is engineered to operate easily and be free of maintenance for many years.

Pesticide valued in excess of \$1.5 billion is used annually worldwide to protect just fruit and nut trees. More effective use of the pesticides can have substantial financial benefits, as well as minimizing the unnecessary exposure of the environment to potent chemicals. CDS is presently seeking a venture capital investment to commence commercial operation.

CDS was founded in April, 1980, with the objective of developing equipment to produce large quantities of highly charged droplets. Initial funding came from internal sources and from an outside equity contribution of \$25,000. After extensive laboratory evaluation and market research, attention was focused upon the enhanced application of agricultural pesticides. In April, 1981, \$250,000 was obtained as a Research and Development Limited Partnership through the Taplin and Montle Development Fund. The Fund will be reimbursed through a 10% royalty on units until an agreed-upon total is reached. Afterward, the royalty rate decreases to 0.5%. CDS and the Taplin and Montle Development Fund are now negotiating the total to be paid to the Fund and the transfer of exclusive patent rights to CDS.

RESUMES OF PRINCIPALS

G. KEITH FUNSTON, JR., Director

M.B.A., Wharton, 1973. B.A., History, Trinity College, 1971. Seven and one-half years with Arthur Andersen & Company, Management Information Consulting Division. Initial training in auditing. Experience in business planning, profit improvement, and systems development in a wide variety of industries including retail banking, manufacturing companies, professional service firms, and state government. Promoted to Manager in 1978. He is Vice President of Finance and Administration of Advanced Energy Dynamics, Inc.

JOHN F. O'DONNELL, Chairman

Sc.D., Chemical Engineering with minor in Industrial Management, MIT, 1955. M.S., Chemical Engineering Practice, MIT, 1950. B.S., University of Notre Dame, 1949. Six years of research and teaching at MIT and the French Petroleum Institute. Twenty-six years of industrial experience in the initiation, establishment and operation of business enterprises based on innovative technology. Prior to Advanced Energy Dynamics, Inc., this included five years as Senior Vice President of Arthur D. Little, Inc., and General Manager, ADL Enterprises; eight years as President of Abcor, Inc., the leading firm in development, manufacturing and sale of ultrafiltration equipment to the process industry; and the position of Vice President of a Division of Mobil Oil Corporation. He is Chief Executive Officer of Advanced Energy Dynamics, Inc.

STANLEY R. RICH, Director

B.E.E., C.C.N.Y. School of Technology, 1938. Graduate studies in Geophysics, Harvard University, 1945 to 1947. Graduate studies in Advanced Electrical Engineering, Brooklyn Polytechnical Institute, 1940 to 1942. Adjunct Professor of Electrical Engineering, MIT (Gordon Professor for Product Development). Mr. Rich holds over 50 issued U.S. patents and has authored over 50 technical papers. His inventions have been manufactured by companies throughout the free world. He has more than 30 years of experience in the founding and operation of technology-based industrial enterprises. He was founder and President of the Magnetic Amplifier Corporation, the Ultra-Visconson Corporation, General Ultrasonics, Inc., Teknika, Inc., and RP Industries, Inc. He and Mr. Sachar are inventors of the CDS Generator. He is Executive Vice President and Technical Director of Advanced Energy Dynamics, Inc.

KENNETH S. SACHAR, President

M.B.A., N.Y.U., 1979. Ph.D., Electrical Engineering, MIT, 1974. M.S., B.S., Electrical Engineering, MIT, 1970. Five years at IBM developing techniques for dense packaging of high power integrated circuits, defect detection and repair of complex circuit interconnection patterns and marketing of computer systems for library automation. Mr. Sachar holds over 3 issued U.S. patents. He and Professor James R. Melcher, MIT, wrote the EPA report: "Charged Droplet Scrubbing of Submicron Particulate". He and Mr. Rich are inventors of the CDS Generator.

BARRY UNGER, Vice President, Marketing and Business Development (part-time)

Ph.D., Administration and Planning, Harvard University, 1982. B.S., Engineering and Humanities, Management, MIT, 1970. Two years as Senior Advisor on Science and Technology, U.S. Small Business Administration, with responsibility in defining national policies and legislation affecting technology based businesses. Six years as Co-Founder, Executive Vice President and Director, Kurzweil Computer Products, Inc., a manufacturer of reading machines for blind persons and optical character recognition systems for commercial use. Served as Chief Marketing Officer.

ENERGY AND ENVIRONMENTAL ENGINEERING, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Energy and Environmental Engineering, Inc.

ADDRESS: 1B Monsignor O'Brien Hwy., P.O. Box 215, East Cambridge, MA 02141

PHONE: (617) 720-3800

EXECUTIVES IN ATTENDANCE: Dr. Michael Mohr, Vice Pres. and Technical Director
Michael Ward, Senior Marketing Analyst

MAJOR COMPANY PRODUCTS: Research and development in energy and environmental processes. Presently developing a staged fluidized-bed coal-fired boiler for industrial and utility applications. The boiler is characterized by significantly lower capital and operating costs without sacrificing the strictest environmental standards.

NUMBER OF YEARS IN BUSINESS:

3.5 years in operation (Founded Sept. 1979)

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
20 \$1.3 million (FY 82)

<u>MARKET DATA:**</u>	<u>1 year (1987)</u>	<u>3 years (1989)</u>	<u>5 years (1991)</u>
Industry Market Size \$	\$3.3 billion	\$3.6 billion	\$3.8 billion
Firms Expected Share of Market \$	\$4,000,000	\$40,000,000	\$76,000,000

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	\$300,000	\$800,000	\$1,300,000	\$1,700,000	\$2,500,000
- % pre-tax profit of sales	3.4	2.6	3.2	5.0	7.3
- Total liabilities	\$27,000	\$135,000	\$132,000	\$150,000	\$200,000
- Tangible net worth	\$8,700	\$24,000	\$56,000	\$120,000	\$256,000
- How much capital requested?	\$3.5 million				
- How will financing be used?	Construction and testing of Process Development Unit of Staged Cascade Fluidized Bed Combuster; Initiation of marketing efforts to sell commercial units.				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

**R&D for boiler completed 1986 projecting from there

Venture Capital Fair '83

ENERGY AND ENVIRONMENTAL ENGINEERING, INC.

Company History

Energy and Environmental Engineering, Inc. (E³I) is a privately held small business. E³I was incorporated in Massachusetts on October 18, 1979 and maintains corporate offices at 1B Monsignor O'Brien Highway, Charles River Industrial Park, Cambridge, Massachusetts. The company was established to provide high technology services in the development, design, and assessment of energy and environmentally related processes and products. The staff of E³I is comprised of highly qualified engineers and scientists with extensive experience in solving energy and environmental problems. The staff is complimented by a number of consultants from the Massachusetts Institute of Technology.

The founder and chief executive officer of E³I is Dr. James H. Porter. Dr. Porter was an Associate Professor of Chemical Engineering at the Massachusetts Institute of Technology. He has served as a consultant to more than a dozen government and industrial concerns. He has been a member of the Board of Directors of several U.S. based companies and an executive officer of three Cambridge based firms. He is currently a member of the Science Advisory Board of the United States Environmental Protection Agency, co-founder and at one time, President of the National Organization of Black Chemists and Chemical Engineers, and a member of the American Institute of Chemical Engineers.

E³I has extensive experience in the development of fluidized bed technologies. E³I received a competitive award from the U.S. Department of Energy to design an Advanced Atmospheric Fluidized Bed Combustor. This was an extension of work E³I began as a subcontractor to Howard University. Moreover, it has proposals pending for a number of fluidized bed contacting applications. E³I's experience in fluid bed contacting technologies includes:

Development of an Advanced Concept for Atmospheric Fluid Bed Combustion

In July 1982, E³I received a competitive award from DOE to continue the development of the SCFBC as an advanced concept in atmospheric fluid bed combustion. The basic design concept of the SCFBC is a vertical series of shallow fluidized beds which provide optimal conditions for the combustion of coal, desulfurization of combustion gases, and heat transfer to water filled tubes for the purpose of producing steam.

The exhaustive technical and economic investigation completed in March 1983 supports the following claims.

Simplified coal feeding. The SCFBC can use a simple reliable overbed stoker-type coal feed system without the excessive carbon loss and SO₂ emissions associated with overbed feeding in a conventional atmospheric fluid bed combustor (AFBC).

Reduced limestone requirements. The staged SO₂ capture of the SCFBC design provides a unique application of the sorbent reactivation process developed by the Argonne National Laboratory. This process cuts limestone requirements and waste disposal costs in half.

Lower capital cost. The SCFBC is equivalent to an AFBC boiler and economizer combined but the SCFBC costs 15 percent less than an AFBC boiler alone. This cost savings is made possible by submerging all heat transfer tubes in fluidized beds, thereby reducing the number of tubes required by over 50 percent.

JAMES H. PORTER
President

Dr. Porter has twenty-five years of experience as a practicing chemical engineer, both in industry and as a professor of engineering. He is known for his development of new process concepts and for the application of computers for process design and simulation. Dr. Porter has also made significant contributions in the fields of fluidization technology, membrane permeation systems, and computerized design and analysis of advanced power cycles.

Dr. Porter is a recognized expert in the design and operation of fluid bed combustors. He has supervised research on the reactions of dolomitic limestones with sulfur gases in reducing and oxidizing atmospheres; his primary contributions related to changes in the acceptor morphology during reaction and its impact on the kinetics and extent of reaction.

Dr. Porter's experience includes the design of a staged fluid bed retorting system, the design of fluidized bed steam boilers for oil field flooding, the design and construction of a four foot by nine foot fluid bed steam boiler and the design and testing of TGA facilities for limestone sulfur capture analysis. Dr. Porter also supervised a work effort to establish a test program for the T.V.A. 70 kph Fluid Bed Boiler in support of the design of a 200 MWe facility.

Education:

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Chemical Engineering, Sc.D.

RENSSELAER POLYTECHNIC INSTITUTE
Chemical Engineering, B.Ch.E.

Experience:

1979-Present

ENERGY AND ENVIRONMENTAL ENGINEERING, INC.
Cambridge, Massachusetts
President, Founder and Chief Executive Officer
Responsible for company business development and direction

1976-1979

ENERGY RESOURCES CO, INC.
Cambridge, MA
Vice President and Chief Scientist
Developed business opportunities for company.
Responsible for fluidized bed process design activities. Managed many research and development projects including:

- Fluidized Bed Combustion of Consol Char with a Closed Cycle Gas Turbine (DOE)
- Evaluation of Combined Potassium Cycle and Steam Cycle in Conjunction with a Fluidized Bed Char Combustion Unit (DOE)
- Case Study Applications of Venture Analysis (DOE)
- Investigation of Nitrogen and Sulfur Reduction in Residual Fuel Oil

Served as Vice President of ERCO Systems, Inc. and Electrostatics, Inc.

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1971-1976

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Cambridge, MA

Department of Chemical Engineering

Associate Professor

Was Junior Faculty advisor and a member of the Graduate Minority Enrollment Committee, the Energy Policy Study Group, the Dean's committee to develop an educational research program for the Energy Laboratory, the advanced power cycle study group and the Dean's committee to formulate MIT financial policy.

1967-1972

ABCOR, INC.

Cambridge, MA

Manager, Computer Application and Design

Developed programs to simulate chemical processes, human systems, and biomedical devices. Established and maintained an engineering design guide.

1963-1967

CHEVRON RESEARCH CORPORATION

Richmond, CA

Senior Research Engineer

Developed programs to facilitate process design, developed a computer aided design system, developed a furnace design program, was responsible for pilot plant testing and mathematical simulation of chemical engineering phenomena, and developed correlations for heat, mass and momentum transfer in process equipment.

1955-1958

ESSO STANDARD OIL

Linden, NJ

Engineer

Developed a refinery simulation program and designed and simulated a bulk products storage terminal.

Consultant:

Dr. Porter has served as a consultant to more than a dozen industrial and government contacts including:

- Arthur D. Little, Inc.
- Lockheed Aircraft Corporation
- National Institute of Health
- Development Sciences, Inc.
- Dynatech Corporation
- Environmental Protection Agency
- Oak Ridge National Laboratory

Research:

Energy Related

- Development of fuel-to-fuel and fuel-to-electric power computer aided design systems
- coal liquefaction using Kraft pulping solution
- coal-iron-steam gasification system
- high temperature low-BTU gas desulfurization
- fuel cells using iron suspensions as a fuel

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- magnetic separation of pyritic sulfur in coal liquefaction
- analysis of limestone/dolomite reactions with sulfur gases, and
- development of computer aided design system

Biomedical

- Separation of particulate suspensions in a centrifugal field, and
- mass transfer and interface stability in liquid-liquid oxygenators

General

- Gas transport through polymeric films
- design of ideal cascades of gas permeators
- electro-reverse osmosis
- pressure sensitive absorption-desorption in chemical equilibrium reaction systems, and
- jet mixing in flue gas stacks

Professional Societies and Activities:

1978 - Present	President - Society for the Professional Advancement of Black Chemists and Chemical Engineers
1978 - Present	Committee on Minorities in Engineering, National Research Council
1976-1978	Vice-Chairman, Executive Committee, Society for the Professional Advancement of Black Chemists and Chemical Engineers
1971-1975	Board of Directors, United Community Development
1971-1974	American Institute of Chemical Engineers Subcommittee on Process Control CACHE Subcommittee on Computer-Aided Thermodynamic Properties Prediction
1970-1974	Alumni Advisory Council, MIT

Honors, Awards and Fellowships:

1973-1974	Outstanding Professor Award from Graduate Student Body at MIT
1962	Chevron Research Fellowship
1953-1954	Editor, <u>R.P.I. Engineer</u>
1954-1955	Jesse Smith Moyes Foundation Fellowship

Venture Capital Fair '83

1951

R.P.I. Prudential Fellowship
Mamaroneck University Club Scholarship
Sigma Xi
Pi Delta Epsilon

Patents:

1970

Gas Well Sulfur Removal by Diffusion Through
Polymeric Membranes, October

1978

Fluid Bed Combustor Design, May

A. RICHARDSON GOODLATTE

Vice President

Dick Goodlatte is a transportation professional specializing in management and planning services in the field of public transportation. He has thirteen (13) years of related experience including: general management, maintenance and engineering management, project management, marketing management, and public relations.

Consulting Experience

1981 ENERGY AND ENVIRONMENTAL ENGINEERING, INC., Cambridge, Massachusetts
Vice President, Administration and Manager, Transportation Division
Responsible for corporate administrative and financial management, and urban mass transportation consulting services within this growing high technology firm.

1979-1981 INDEPENDENT CONSULTANT
Provided contract services to the following organizations:
● Management Analysis Center (MAC)
● Southeastern Pennsylvania Transportation Authority (SEPTA)
● Urban Transportation Development Corporation, LTD. (UTDC)
● USDOT Transportation Systems Center (TSC)

Assisted on MAC study of Northeast Corridor commuter rail services, investigating alternatives to the present Conrail operation.. The results were included in a U.S. Railway Association report to Congress on April 1, 1981.

Served as contract manager of the SEPTA Rail Equipment Department during six months in 1980. Reorganized the department, prepared fiscal year 1981 budget request, initiated preventive maintenance programs, and recruited a permanent successor. Performed two special studies of vehicle procurement and maintenance practices.

Assisted UTDC in the development of a U.S. subsidiary corporation and advised them on U.S. marketing plans and strategies.

Supported TSC on three major rail transit R & D programs:

- Urban Rail Noise Abatement
- Electromechanical Interference (EMI)
- Automatic Train Control (ATC)

Management Experience

1976-1979 MASSACHUSETTS BAY TRANSPORTATION AUTHORITY, Boston, Massachusetts
Chief Mechanical Officer
Responsible for maintenance and engineering management of the MBTA fleet of 350 rapid transit cars, 300 light rail vehicles and PCC cars, and 50 trackless trolleys. Supervised 800 employees who were represented by eleven different unions. Controlled a \$16 million annual operating budget.

Venture Capital Fair '83

A. Richardson Goodlatte
Page Two.

Also supervised a \$150 million capital improvement program consisting of: procurement of 190 new rapid transit cars; rehabilitation of 50 PCC cars and 88 rapid transit cars; procurement of an entire new fleet of rail work cars; introduction into service and development of the U.S. Standard Light Rail Vehicle. Responsible for major new initiatives in the area of employee qualification and training; formalized maintenance procedures and programming; and maintenance information systems development.

1972-1976 HOOVER INDUSTRIES, Miami, Florida
Vice President and General Manager
Responsible for the organization and management of a new corporate division which grew to a peak annual sales volume of \$4 million in less than two years. Duties included personnel staffing and training, material procurement and control, production management and quality control.

Complete profit and loss responsibility for refurbishment of railroad passenger cars. Principal customers were Amtrak and Auto-Train Corporation.

1971-1972 NATIONAL RAILROAD PASSENGER CORPORATION, Washington, D.C.
Project Manager - Equipment Refurbishment
Responsible for the organization and development of programs for upgrading the image of rail passenger transportation in the United States. These programs included interior and exterior refurbishment of more than 1000 passenger cars which had been purchased by Amtrak from the nation's railroads.

Marketing Experience

1969-1971 KAMAN AEROSPACE CORPORATION, Bloomfield, Connecticut
Marketing Manager - Surface Transportation
Responsible for developing and directing a market strategy which would lead to business development in public transportation products and services.

1966-1969 UNITED AIRCRAFT CORPORATION, Farmington, Connecticut
Marketing Representative - Surface Transportation Systems
Performed varied marketing assignments in support of the United Aircraft TurboTrain Project, including planning and economic proposals for improved inter-city and commuter rail passenger services.

Education

1959-1963 UNIVERSITY OF MASSACHUSETTS, Amherst, Massachusetts
Bachelor of Business Administration (Accounting) with honors
June 1963

GENERAL VIDEOTEX CORPORATION

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: General Videotex Corporation

ADDRESS: 377 Putnam Avenue, Cambridge, MA 02139

PHONE: (617) 491-3393

EXECUTIVES IN ATTENDANCE: Wes Kussmaul
Glenn McIntyre

MAJOR COMPANY PRODUCTS: Delphi (Information Utility - analagous to source or compuserve) (Videotex)

NUMBER OF YEARS IN BUSINESS: 2 years

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
15 0

<u>MARKET DATA:</u> (U.S. Videotex)	1 year	3 years	5 years
Industry Market Size \$	\$15,000,000	\$100,000,000	1 billion
Firms Expected Share of Market \$	\$328,000	\$8,685,000	\$100,000,000

<u>FINANCIAL DATA:</u>	2 years ago	last year	current	projected 1 year	projected 2 years
- Gross sales	-	-	-	\$328,500	\$2,777,400
- % pre-tax profit of sales	-	-	-	0	\$342,000
- Total liabilities			\$100,000		
- Tangible net worth	\$2.5 million				
- How much capital requested?	\$500,000				
- How will financing be used?	\$40,000 Software/\$261,000 Marketing/\$40,000 Overhead/\$88,000 Capital Equip. & Maintenance/\$71,000 Contingencies Total - \$500,000				
- What round of financing is this?	1st _____	2nd <u>x</u> _____	3rd _____		

Please submit a brief company history including bibliographical information or resumes the principle people in the firm.

THE COMPANY

General Videotex was founded in 1980 by a young entrepreneur, J. Wesley Kussmaul, who is the major stockholder and chief executive officer. Mr. Kussmaul has had an extensive background in programmable management and in the marketing of computer hardware and software. He has worked in these capacities for a number of large firms, including Tektronix, Gould Inc., and Liberty Mutual Insurance Co. He has also operated his own consulting company.

GVC's operations manager is Glenn McIntyre, whose background includes over 10 years in computer and computer related industry. Mr. McIntyre has experience in programming management, software consulting, and product development. He has worked for Digital Equipment Corporation and National Data Corporation and has consulted for many large firms in the Boston area.

The company's software team is directed by James Maiellano, who possesses over 15 years of professional experience in management, systems, training, education, and administration; in addition to 5 years of mechanical engineering. Other team members include Mark Reynolds, Michael Adler, and Kip Bryan who have all written a number of successful database and communications programs.

General Videotex Corporation's auditors are Touche Ross & Co. Mr. Alan Goldstein is the partner in charge. The company's general counsel is Foley, Hoag & Eliot. The principal attorney is Mr. Philip Burling.

The principal offices of the company are at 377 Putnam Avenue, Cambridge Massachusetts 02139. The main phone number is (617)-491-3393.

THE OPPORTUNITY

A major revolution is quietly gathering momentum. It is about to explode into one of the major social and economic forces of the 1980's. Just as the telephone and television have changed our way of life, so will the microcomputer. In fact, the computer revolution has the potential to provide technological advances that will affect almost every aspect of our society.

The microcomputer is destined to revolutionize the way we assimilate and store information, educate our children, manage our businesses and households, control our finances, pay our bills, shop for major purchases, and communicate with others. It will even determine how and where we work. Since the industry is in its infancy, perhaps the most significant impact of this technology is still beyond our imagination.

The major emphasis up to this time has been the development of hardware. Each of these manufacturers has produced their own computer, and, as of yet, no one has been able to produce a product that is markedly different or technologically superior to others. Competition among manufacturers is intense and as a result computers are becoming less expensive. This combination of intense competition and low price is producing a mass market in home computers.

The Yankee Group, a Boston-based market analysis firm, estimates that 50-55% of American households will own a computer by the end of the decade. They will be almost as common as color televisions and stereo phonographs. Like these appliances, the computer is spawning other industries. A television is not marketable without programs to watch, just as a stereo depends on records or tapes to play. Similarly, computers depend on software. Without software, a computer is almost useless. The spirit of this revolution will therefore be centered on computer software. Since December 1982, software will be the largest segment of the home computer/video game category.

Technically, General Videotex sells services, not software. But for marketing purposes, the product is treated as a software package. It is presented in computer stores and in the burgeoning software departments of video stores, stereo shops and bookstores right alongside the games, educational software and VisiCalc. Hence we position the product in a market that is exploding right now in order to gain early market share in a market that is itself set for an explosion in two years.

Venture Capital Fair '83

BRIEF RESUMES OF MANAGEMENT TEAM

Wes Kussmaul President and CEO

1980-81	Project Manager, Special Markets	Tektronics Inc.
1979-80	District Manager, New England	Benson-Varian
1977-79	Sales Engineer	Gould Inc.
1971-77	Programming Manager	Liberty Mutual Insurance

BS Physics/Computer Science	Central Missouri State
Graduate Business Courses	Boston University

Glenn McIntyre Operations Manager and Retail Marketing

1981-82	Manager, Value-Added Services	National Data Corporation
1978-81	Consultant, Banking, Financial	Technical Aid Corporation
1977-78	Systems Analyst, Human Resources	Digital Equipment Corp
1973-77	Programmer, Educational&Scientific	Albany University
		Oswego University

BS Economics/Computer Science Albany University

James Maiellano Software and Systems Manager

1975-82	Professor, Information Systems	Northeastern University
1974-75	Professor, Computer Science	Berkshire Comm. College
1970-74	Director of Computer Services	Wentworth Institute
1965-70	Advance Project Engineer	General Dynamics Corp
1963-65	Engineer, Mechanical Design	Various Companies

BS Mechanical Engineering	Northeastern University
MS Mechanical Engineering	Northeastern University

Tim Glaze Marketing Manager - Private Groups, Packaged Products

1981-82	Marketing Manager	M/A Comm
1980-81	Sales Engineer (Top 1% Nationally)	Tektronics Inc.
1979-80	Salesman, Printing Products	Design Press Company
	Salesman, Executive Sales	AIIESEC

BS International Business University of Colorado

Gary Angell Marketing Manager - Commercial and OEM

1979-82	National OEM Sales Manager	ICOM Systems
1978-79	Marketing Director Communications	Intertel
1975-78	Senior Product Manager, Communications	CODEX
1973-74	Product Marketer, Mini-Computers	Data General Corporation
1971-73	Computer Salesman	NCR Corporation
1966-70	Communication Officer	United States Air Force

BA Mathematics	Eastern Nazarene College
MBA Marketing	Ohio State University

Venture Capital Fair '83

Mark Reynolds Editorial Director

1981-82	Programming Manager, Data Processing	Bernier&Associates
	Editor The Advances in Mathematics and	Advances in Applied Math.
1979-81	Professor, Mathematics	Northeastern University
1978-79	Instructor Mathematics	Framingham State College
1977-78	Systems Programmer, The Aspen Project	M.I.T. Dept of Chemical Eng.
1976-83	Translator, Russian, Computer Science and Mathematics	

BS	Physics	M.I.T.
MS	Mathematics	M.I.T.

Kip Bryan Software Engineer, Communications Specialist

1979-82	Consultant, Data Communications	Commercial Union Insurance
		National Data Corporation
		Conceptual Design
1972-76	Analyst, Industrial Process Control	Martin Marietta Corp.

BS	Chemistry	Drexel University
Phd	Chemistry (in progress)	M.I.T.

GROWTECH, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Growtech, Inc.

ADDRESS: 1 Piper Road, Lexington, MA 02173

PHONE: (617) 862-0260

EXECUTIVES IN ATTENDANCE: Robert Lussier
Robert Forster
Joyce Morin

MAJOR COMPANY PRODUCTS: Grow/Environmental Systems and Equipment; Produce Production

NUMBER OF YEARS IN BUSINESS: Start-up - Four Principals; \$00 Sales

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	40M+	300M+	2 billion +
Firms Expected Share of Market \$	1M	10M	50M

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales				1 million	3 million
- % pre-tax profit of sales				50%	50%
- Total liabilities	0				
- Tangible net worth	\$150K - 34 acres - Grow Production Site				
- How much capital requested?	\$750K - First Phase Development				
- How will financing be used?	To establish the company's grow laboratory and initial grow production site				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

GROWTECH

GROWTECH is bringing new technical developments to the greenhouse-growing area with a computerized environmental system that for the first time allows the exact plant requirements to be provided. The result is a grow system that provides radical improvements in plant-growth and quality. GROWTECH's computer and co-generation equipment program the environment and in the closed growhouse, become the means by which the plant's grow-response time is optimized, a development that comparatively increases by many times the efficiency of today's usual greenhouse growing methods. GROWTECH's process control provides not only optimum grow control but importantly reduces the comparative amount of energy usage.

GROWTECH will design and assemble the environmental and proprietary system equipment and begin marketing that to greenhouse growers and florists. This equipment market represents initially a \$600 million market that GROWTECH will be addressing. Other applications include seedling grow systems, laboratory test stations and control applications for both military and commercial environmental systems.

GROWTECH will also establish a grow laboratory necessary to prove the system and equipment. This division itself will be a profit-center and initially focus on establishing a produce grow-center for the commercial production of Bibb and leaf lettuce for sale to wholesale and institutional markets. Highly prized for its excellent taste and quality, Bibb will obtain a ready market in both first-class stores and carriage-trade restaurants. Bibb lettuce is difficult to field-grow (it is grown only seasonally in the mid and far west and requires cool, dry nights). GROWTECH's system will grow Bibb daily, harvesting a crop every several weeks. In the future GROWTECH expects to similarly grow other produce and vegetables. Tomatoes, salad greens, cucumbers, melons, spinach are some of the crops that can be grown for wholesale market.

The crops grown using this method have the same characteristics of excellent food quality, high yield, and exceptionally fast growing time (about half the normal growing time). These factors can be combined to produce multiple crops and do this 365 days of the year right here in New England.

A growing system has already been constructed, and both lettuce and tomatoes grown proving the feasibility of GROWTECH's plan. Additional pre-production tests are now in the planning stages.

GROWTECH owns 34 acres of well-located farm-land in Tyngsboro, Massachusetts. A former dairy farm, this site will be prepared for operation as the pilot production grow-center, and for the long term, as the model operating system.

HYBRICON CORPORATION

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Hybricon Corporation
ADDRESS: 410 Great Road, Littleton, MA 01460
PHONE: (617) 486-3174

EXECUTIVES IN ATTENDANCE: C. Michael Hayward, President
Richard W. Palmer, Vice Pres. - Sales
James F. Williams, Vice Pres. - Operations

MAJOR COMPANY PRODUCTS: Comprehensive line of standard and custom interconnection products, accessories and services for microcomputer based equipment. These include backplanes card cages, socket boards, accessories for Multibus, Versabus, VME Bus only, CAD engineering and automated manufacturing services.
NUMBER OF YEARS IN BUSINESS: Six and one half years

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
35 For sales volume, see below
Backlog as of 1/1/83 - 1.5 million
MARKET DATA: 1 year 3 years 5 years

Industry Market Size \$
Firms Expected Share of Market \$ refer to business plan

FINANCIAL DATA:	2 years ago	last year	current	projected 1 year	projected 2 years
- Gross sales	\$720,000	\$1,231,000		\$2,260,000	\$4,166,000
- % pre-tax profit of sales	refer to business plan				
- Total liabilities	\$339,900	\$481,400			
- Tangible net worth			\$96,500		
- How much capital requested?	see business plan				
- How will financing be used?	to reduce bank debt, equipment, product development, marketing and sales, and other operating expense				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.
*Financing to date by principals only

Venture Capital Fair '83

Hybricon Corporation was founded in September of 1976 to develop and manufacture interconnection and packaging products for the electronics industry. Of major importance in the Hybricon Business Plan are:

1. Comprehensive standard product offerings supporting the major microcomputer bus structures, thus providing off the shelf products for these requirements. The standardization that the microcomputer bus structures have brought to our industry have provided Hybricon with the opportunity to take the lead in standard product offerings, particularly for the new 16 BIT busses.
2. The total capability concept, based on the cohesive integration of products and services to create a complete and self-sufficient source which effectively and economically addresses all the customer's needs for these items which are basic to the majority of electronic systems. This market is extremely broad based, spanning most of the electronics industry including the fast growing communications industry.

This concept, which has at times been called the "Soup to Nuts" or "One Stop Shop" concept has proven to be of very significant competitive value both in accessing volume business at an early stage and in maintaining above average margins.

The starting point is an extensive CAD database of Hybricon engineered designs, to which has been added services such as engineering, preproduction and special systems hardware, assembly and wiring, production assembly and automated testing of finished products plus numerous accessory products. This allows Hybricon to design, supply preproduction assemblies and manufacture complete backplane interconnection and enclosure systems making it necessary for customers to go to the various traditional sources for their component parts.

Hybricon Corporation was started with limited capital provided by founder and President C. Michael Hayward, who at that time owned a small consulting organization. In 1978 the consulting business was phased out when Hybricon had approximately eight employees. Total sales that year were \$170,000. Growth proceeded at 60% to 70% compounded to a sales volume over \$1.2 million. Backlog on December 31st, 1982 exceeded \$1.8 million and the company is involved in an increasing number of engineering and production contracts, each with potentials of up to several hundred thousand dollars. In addition, in 1982 Hybricon completed contracts with a major aerospace firm with a total value exceeding \$300,000. The hardware was for a first of a kind system to be supplied to the Navy. Hybricon has quoted on the next system requirement for which orders will be placed in 1983, for a total amount of \$1.5 million.

Current order commitments are placing a severe financial strain on Hybricon. Without additional capital, the company will probably have to limit future commitments with resultant loss of market position. Our market position

Venture Capital Fair '83

has enabled the company to enjoy above average margins which have been re-invested in engineering, sales, manufacturing facilities etc. Margins can be further increased by bringing in house activities that are now subcontracted. This will also provide better control on our delivery commitments.

MANAGEMENT

C. Michael Hayward, President of Hybricon Corporation, has in depth knowledge of the market areas addressed by Hybricon. He has extensive company management experience, having successfully founded and run three companies. He started Hybricon with only a small amount of capital and it is now in a financially stable condition with substantial positive net worth and bank credit. Under his leadership Hybricon now has a solid customer base with an image of an organization for exceeding its actual size.

Mr. Hayward has a Master's degree in electrical and mechanical engineering. He is a member of the British Institution of Electrical Engineers. He is also a senior member of the American Institute of Electrical and Electronic Engineers.

He started work at Marconi's in England. In 1956 he accepted an engineering position with Computing Devices of Canada, Ltd., in Ottawa, Canada. He quickly advanced to Senior Engineer.

In 1959, he joined Epsco Incorporated, Boston, Massachusetts and advanced to head up the Analog Devices Group. A year later he became Chief Engineer of the Products Division, until he joined Mithras Incorporated as Director of Engineering, developing infrared systems.

At this time he was actively looking for an opportunity to start an engineering business and interest from two prospective client companies prompted him to form Hayward Consulting and Engineering Company in 1965. Notable clients of this company have been Digital Equipment Corporation, Polaroid Corporation, Baird Atomic, Equitable Life Assurance Company, Compugraphic Corporation, to cite just a few.

Many significant developments came from this organization including the first transistorized cardiac output computer, electronics for one of the first digital cassette recorders for Computer Systems and, under contract from Equitable Life Assurance Company, a medical data communications system was developed, the first of its kind, that would enable insurance agents to automatically perform a medical checkup in a client's own home and transmit this information, including an electrocardiogram, to a base station located in the main Equitable Building in New York City.

In 1970, Mr. Hayward saw that the market for the linear components was headed for a period of considerable growth and correctly assessed this as a good opportunity for a new company that would manufacture function modules; digital to analog converters and related components. Since he had considerable expertise in this area, he founded Dynamic Measurements Corporation and obtained an initial funding of \$85,000 in the form of convertible loans. In March

Venture Capital Fair '83

1971, there was a stock issue of \$125,000 from a new holding company which later, in 1973 bought all outstanding stock in the company. As President, Mr. Hayward guided Dynamic Measurements Corporation to early profitability in August of 1971. Steady growth and acceptance of its products set the stage for the later acquisition of the company. In November of 1973, Mr. Hayward left to pursue the business of Hayward Consulting and Engineering Co., Inc. Dynamic Measurements Corporation has continued to grow from the product and customer base achieved while Mr. Hayward was president. This entrepreneurial experience has been a major factor contributing to the later success of Hybricon Corporation.

James F. Williams is Vice President of Operations for Socket Board Products Backplane Systems and Automated Manufacturing Services. He has an Associates degree which he received in 1973, and decided to continue his education at Wentworth College to obtain a Bachelor's degree in Electronic Engineering. He joined the engineering staff at Hayward Consulting and Engineering, Incorporated in 1975 where he was involved in various projects until joining Hybricon Corporation early in 1977. He was intimately involved with the early product designs and developed methods for manufacturing them. His ability to take charge, his strong entrepreneurial spirit and determined commitment to meeting shipment forecasts were instrumental in his promotion to Production Manager and eventually Operations Management.

Roland Kurs is the Controller for Hybricon Corporation. He was born in Cuba and completed five years of Accounting College. In 1956, Mr. Kurs joined, as an accountant, Almacen de Tejidos La California, SA in Santiago. At the same time he was attending the University of the Oriente to obtain his Certified Public Accountant degree. In 1957, he was advanced to Manager of the Accounting Department and in less than a year, received the promotion to Vice Treasurer of Almacen. In March 1960, the Cuban government confiscated Almacen along with Mr. Kurs own accounting business as no privately held companies were allowed. He then became employed by the Department of Public Health as Accounting Manager in the Budget Department. He emigrated to the United States in 1967 and was employed by the Sheraton Corporation's Accounting Staff. After five years at the Sheraton Corporation, Mr. Kurs requested a transfer, within the company to the Data Processing Department for a better opportunity. In 1978, he joined Purity Supreme to head up the Data Processing operation.

Mr. Kurs joined Hybricon in October, 1979 to take over the accounting responsibilities and has brought to Hybricon a high level of professional education combined with an extensive and unusually varied business experience. In the years that Mr. Kurs has been with Hybricon, the impact of his experience has been considerable and visible in all areas from financial planning to his constantly persistent and successful efforts at early collection of receivables. Mr. Kurs was appointed Controller of the corporation in 1980.

Richard W. Palmer joined Hybricon as Vice President of Sales. Mr. Palmer came to Hybricon with a reputation as a dynamic manager, an accurate fact finder and a firm decision maker.

Venture Capital Fair '83

Mr. Palmer joined Motorola Semiconductor Products Incorporated in 1962, while still at college to work in the mail room. His capabilities were soon recognized and he was promoted to a supervisory position. He was later transferred to the position of supervisor in Administration and Control where he, with a staff of 20 people reporting to him, coordinated the inputting of data to the data processing system. Following a further promotion to supervisor, Inventory Control Operation, he had the responsibility for inputting, not only inventory, but most company data, into the data processing system. After operational experience in this position, he was made Manager, OEM Warehouse and Shipping, which put him at the top of this organizational tier, his successors in both previous supervisory positions, reporting to him. At this stage, Mr. Palmer was responsible for an operating budget well in excess of one million dollars and had about 150 people reporting to him.

In 1969, Palmer was appointed Manager, Customer Service Administration and, in that capability, supervised world wide communication centers, order processing and special projects. In 1972, problems at the Motorola plant in Guadalajara, Mexico prompted the selection of Mr. Palmer by Motorola management to take a temporary troubleshooting assignment at that plant. During this assignment he was able to isolate and define the problem areas, in Production Control, data management and customer service. His subsequent recommendations were adopted. The success of this troubleshooting mission prompted his assignment to other problem areas. However, because he did not wish to become identified with this type of assignment he declined and was assigned Production Control Management for three major product groups at four off-site manufacturing facilities at Mexico, Malaysia, Scotland and Texas, as well as the main plant in Phoenix, Arizona. At this time he was selected to participate in the Motorola Executive Management Development Program. Shortly thereafter he became Section Manager for Materials Production Control and Customer Service, a senior management position which controlled the previously described production control management functions as well as coordinating all phases of production scheduling for internally produced silicon and phases of production scheduling for internally produced silicon and germanium wafers. His organization also prepared manufacturing plans and monitored performance.

In November of 1974, Mr. Palmer was approached by Dynamic Measurements Corporation of Winchester, Massachusetts to be their National Sales Manager. He accepted and, in this position, he had full responsibility for Regional Sales Managers and a network sales of representatives.

In January of 1976, the parent company of Dynamic Measurements Corporation assigned him to the Lewcote Chemicals and Plastics Division to be responsible for their Marketing and Sales activities. He left Lewcote in October, 1981 to join Hybricon Corporation.

MAGNETITE, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Magnetite, Inc.

ADDRESS: 210 South Street, Boston, MA 02111

PHONE: (617) 423-4460

EXECUTIVES IN ATTENDANCE: Nubar Hagopian, President
Kenneth J. Foster, Sr. Vice Pres. - Technical Director
Alexander Cochran, Vice Pres. - Sales and Marketing

MAJOR COMPANY PRODUCTS: Unique magnetic interior window insulation systems - Magnetite

NUMBER OF YEARS IN BUSINESS: One year, however the company's products have been marketed for five years

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
16

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$45,000,000	\$90,000,000	\$203,000,000
Firms Expected Share of Market %	7%	10%	15%

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales			\$2,000,000	\$5,600,000	\$9,000,000
- % pre-tax profit of sales			-	14%	16%
- Total liabilities			\$735,000	\$1,300,000	\$1,400,000
- Tangible net worth			(\$100,000)	\$300,000	\$1,200,000
- How much capital requested?	\$400,000				
- How will financing be used?	Inventory, product development, promotion and marketing				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

THE PRODUCTS

Magnetite®

The Magnetite® Interior Window System is twice as energy efficient as conventional aluminum storm windows because it forms an air-tight seal - substantially eliminating cold air infiltration in the winter and hot air infiltration in the summer. Even if a home or other building has exterior storm windows, adding Magnetite® inside can significantly reduce energy loss and pay for itself in fuel savings in just a few years.

Magnetite® attaches magnetically to the interior window frame by means of the same magnetized gasket principle used so successfully for two decades on refrigerator doors. A match-painted steel strip is first applied to a wood or aluminum-framed window to provide the metal/magnet bond for the magnetized frame of the new thermal window. The resulting seal is virtually air-tight, and seals cold air out as a refrigerator door seals cold air in, yet the unit can be lifted off easily for cleaning or storage, and can slide upwards to permit an air opening.

Once installed, Magnetite® is virtually invisible. It consists of one piece of crystal-clear acrylic glazing that fits without any obvious means of attachment over the entire window. The 100% acrylic Magnetite® glazing is completely framed with a continuous strip of flexible, permanent, magnetic material encased in polymer plastic. Magnetite® windows are made of materials that are widely accepted in the building industry and have a better combination of properties for the insulation of windows than other materials such as metals, woods, and glass. In a colorless form, acrylic is as transparent as the finest optical glass. Its total light transmittance is 92%.

Magnetite® glazing has up to 18 times greater impact resistance than ordinary glass in the same thickness. When subjected to blows beyond its resistance, the hazard of injury is greatly reduced because it breaks into large, relatively dull-edged pieces which disperse at low velocity due to the light weight of the material.

Magnetite® glazing material is also available in a number of bronze and gray tints. The framing material (ABS Polymer with magnet) is available in brown and white for interior color coordination in both residential and commercial sizes. These materials can be cut, drilled, and machined like wood or metals. The acrylic sheet is frame-mounted, not only because of thermal expansion and contraction, but also because this method gives the material its greatest resistance to impact. Four-sided channel framing of ABS Polymer distributes shock around the periphery of the sheet, thereby reducing the likelihood of breakage under impact.

Venture Capital Fair '83

As previously mentioned, the thermal performance of Magnetite® far exceeds that of conventional storm windows. This is due to two primary factors: 1) the high thermal resistance of acrylic compared to an equivalent thickness of glass (four times as great), and 2) the almost total elimination of cold or hot air infiltration (leakage) due to the complete magnetic perimeter seal of the Magnetite®. Air infiltration heat loss can range from one-half to twice the magnitude of the conducted heat loss, dependent on the quality and crack space of the prime window. Magnetite® virtually eliminates this air-leakage heat loss (or summer heat gain).

Tests at a nationally certified window fenestration test laboratory have determined that installed Magnetite® air infiltration, with a 25-mile-per-hour wind, is less than .01 cubic feet per minute per linear foot of crack (cfm/ft.). This is approximately 200 times better than the Department of Energy standards for outside storm windows. The average outside storm window has an infiltration rate of two cfm/ft. and other inside storm windows have published figures ranging from 0.1 to 0.5 cfm/ft.

Acrylics are approved building and glazing materials in most jurisdictions. Although they will soften above 260°F, their ignition temperature is greater than 500°F - higher than most woods. The products of combustion are no more toxic than those of burning wood or paper. Magnetite® is easily removed in seconds, for quick exit from a building in case of emergency.

Maintenance with Magnetite® is very simple. Acrylics may be cleaned with Magnetite® Acrylic Cleaner or washed with a mild detergent (3% in lukewarm water). Tar, grease, paint, etc., can be removed with naphtha. Antistatic cleaning is also accomplished with the use of Magnetite® Acrylic Cleaner. Standard acrylics can be scratched by abrasives. Minor abrasions can be removed with Magnetite® Polish or by waxing.

Thermalite®

Thermalite® was developed to provide simple, low-cost window insulation for industrial and other applications where good exterior visibility is not of prime importance. It may most simply be regarded as a stick-on thermopane that is translucent, not transparent. Thermalite® is a one-quarter-inch-thick, cellular, light-transmitting, thermally-insulating window blanket, fabricated from a flexible, transparent polymer which can be precut to size and applied directly to the inside of the window glass by means of a permanent tack pressure-sensitive adhesive.

Laboratory experiments and winter tests of installed Thermalite® have demonstrated about 50% reduction in window heat loss. And the overall window heat-transmission coefficient (U-value) is reduced from 1.13 to about 0.65, giving essentially the same or a little better performance than one-quarter-inch thermopane.

THE COMPANY

Background

In late 1979, the inventor of Magnetite® and Thermalite®, Kenneth Foster, in anticipation of obtaining a patent for the Magnetite® Interior Window Insulating System, entered into a licensing agreement with Charles Spalt, President of Spalt Industries Corp., to distribute this product.

A one-step distribution system using manufacturer's representatives as sales people was employed to sell to installing dealers. The sales for this product were approximately \$1,600,000 in 1980, \$3,400,000 in 1981. In spite of this impressive start-up sales, a number of factors including lack of sufficient investment capital surfaced to cause the company to approach insolvency. In mid-1981 Mr. Foster asked Mr. Hagopian to provide consulting for the company to deal with a number of management issues.

Mr. Hagopian became a full-time employee with Spalt Industries to develop an appropriate management system and business plan. On completion of business plans in the beginning of 1982 Mr. Hagopian approached the venture capital community to obtain investment funds for Spalt Industries Corp.

Due to the magnitude of liabilities of the company, even though sales continued at a reasonable rate Mr. Hagopian was unsuccessful in this effort and he resigned in October, 1982. Thereafter Mr. Foster withdrew his license agreement with Spalt Industries Corp. and he and Mr. Hagopian initiated contact with the venture capital community to obtain funds for Magnetite, Incorporated.

Magnetite, Incorporated, was incorporated in the Commonwealth of Massachusetts on November 8, 1982. Although the company is new its business base has been existing for a number of years. Its major product, the Magnetite® Interior Insulating Window System, is well known and is the standard of the industry. It has established a network of distributors and installing dealers who have been trained to insure quality work and a positive image of the company and its products. The company projects that the potential market for its current and projected products is such that \$90 million in annual sales is realistically achievable. In order to attain this goal it is planning to expand its sales by:

- increasing its capital to finance inventory and receivables, and continue its marketing development programs
- developing its two-step distribution system
- increasing the advertising and promotion program for its trademarked products on a nationwide basis
- increasing its control over sources of supply
- developing retail level consumer sales

Venture Capital Fair '83

The cost of Thermalite® is small compared to conventional, commercial window insulation and thermopane, which can range from \$8.00 to \$25.00 per square foot. This low cost of Thermalite® (one eighth to one twentieth that of competing techniques), coupled with the large heat cost savings, results in very short payback periods (less than one year in most cases) and an annual return on investment of greater than 70% after the brief payback period.

Management

The management staff of the company includes Mubar Hagopian, President and Chief Executive Officer; Kenneth J. Foster, Senior Vice President; Alexander Cochran, Vice President - Sales and Marketing.

The present Directors of the company include Nubar Hagopian and Kenneth Foster, Richard Burcaw, Peter Cook and Lovett Peters.

Mr. Hagopian joined Vecon Energy Systems in early 1981 as Vice President and Chief Executive Officer. Currently as President he has overall responsibility for the management of the company.

Mr. Hagopian has over 25 years' experience in a variety of management positions in operations, marketing and engineering. His earliest professional experience was with EG&G, Inc., of Sedford, Massachusetts, during a period when the company grew from sales of \$4 million to \$250 million- In those 14 years, Mr. Hagopian had a successful record of achievement which lead to his promotion to Assistant Division Manager.

Mr. Hagopian's background includes experience in small business start-ups and high technology management and organization. In 1977 Mr. Hagopian assisted Kenneth Foster in establishing Econ, Inc. As Executive Vice President of Econ, Inc., he successfully guided the initial effort which lead to the development of the present window-insulating system which Magnetite, Inc., now markets.

In 1978 Mr. Hagopian joined Rule Industries as Operations and Plant Manager. Shortly thereafter, he was asked to take responsibility as Director of Corporate Development where he was responsible for the marketing, advertising and promotion, and technical development of new products.

Mr. Hagopian holds an MBA from Boston University and a BSEE from Tufts University.

Mr. Cochran joined the company in June of 1982. He is responsible for directing the company's marketing and sales programs.

Mr. Cochran has over 15 years' experience in sales and marketing. He has been associated with four different companies including RCA Corp., Medical Innovations, Inc., U.S. Surgical Corporation, and Becton Dickinson Medical Systems. In his most recent position with Becton Dickinson as Director, Manufacturers Representatives and National Accounts, he was responsible for the development and direction of a national network of over 100 manufacturers representatives for the sale of a new product line for ambulatory monitoring. In a period of five years he was responsible for increasing sales at an average rate of 25% per year.

Venture Capital Fair '83

Mr. Cochran has a B.A. degree from Boston University and has completed a number of courses toward an MBA degree at the University of Connecticut. Mr. Cochran is 39 years old.

Kenneth J. Foster, Senior Vice President, continues to provide technical direction for product improvement and development. Mr. Foster, a physicist and inventor, is also President and Chief Executive Officer of Econ, Incorporated, a research and development company. He founded that corporation in 1975 to develop and market innovative, energy conservation products and to train and create jobs for a new breed of energy conservation technicians. Econ, Inc., also provides consulting services to the energy conservation and recycling industries and to related public agencies. Primary emphasis is on economic development, manpower training, and job creation.

Prior to founding Econ, Mr. Foster, a President of KJF Associates, developed a large-screen television-projection display system and also served as a consultant to the Air Force and Navy in fields of weapons effects, physiology and protective systems.

From 1960-1974 he was employed by EG&G, Inc., where he advanced to several professional and managerial positions. Mr. Foster holds a number of patents in the energy and optics fields. He is past Director of the Aerospace Industries Association of America and past Division Director of the Instrumentation Society of America. He holds memberships in a number of professional societies and completed a BS in Physics from Boston College. Mr. Foster has conducted postgraduate research at the National Science Foundation Innovation Center at M.I.T.

Equity Distribution

The ownership of the company prior to financing and dilution is as follows:

Nubar Hagopian	50%
Kenneth Foster	50%

MICROFLOW INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Microflow Inc.

ADDRESS: 10 Ledge tree Road, Medfield, MA

PHONE: (617) 359-2076

EXECUTIVES IN ATTENDANCE: Per A. Holst
Paul T. Cody

MAJOR COMPANY PRODUCTS: I.V. Flow Control and Monitoring Device

NUMBER OF YEARS IN BUSINESS: Less than one year

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	300 million	450 million	1 billion
Firms Expected Share of Market \$			

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	-	-	-	1 million	4 million
- % pre-tax profit of sales				25%	
- Total liabilities			0		
- Tangible net worth			0		
- How much capital requested?	\$400K				
- How will financing be used?	Develop 20 prototype units to be evaluated by 10 key hospitals				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

Venture Capital Fair '83

SUMMARY

MICROFLOW, INC. is a venture for developing a next generation microprocessor based IV (Intravenous) therapy device for hospital and general medical care use. The Microflow product will be a highly accurate flow controller designed around a linear photo diode array that will 'see' the volume of each and every drop of liquid passing through a general purpose type I.V. set. The Flow Control and Monitoring Device (FCM) will utilize state of the art technology to achieve several new features presently not available on the market. These features will materially increase the reliability of the device in use, offer better flow and dosage control accuracies, and for the first time make each individual FCM Device a powerful link in a network of devices all under the supervision of a Central Control Unit (CCU) to be developed in a future phase.

The Microflow FCM Device will serve several different applicational needs: as a general purpose I.V. controller for medication and I.V. therapy, for parenteral fluids administration, and for urine volume measurements in patient needing liquids balance monitoring, all under hospital or other medical clinic auspices. In addition, the highly accurate flow and dosage measurement principle employed in the Device, will enable it to serve industrial laboratory market needs, such as in liquid titration analyses, for automatic dosage of liquid components and inerts in medical mixtures and prescription drug preparation, and in accurate small flows of concentrated chemicals in sealed (glass enclosed) environments.

The venture has an unusually attractive risk/return ratio. The risks are relatively low since the Microflow FCM Device will utilize existing state of the art technology integrated by an experienced team and resulting in a novel product design with a number of unique features of high value to the user. The returns will be high since the world market is relatively large and growing steadily at 15 percent per year. All told the selected approach offer attractive profit margins in a traditionally recession proof business area.

The venture requires \$350,000 to finance Phase One: to design and develop the breadboard of the FCM Device, build ten prototype units, and test these in a number of hospitals and medical centers known for their I.V. therapy expertise. No salaries will be drawn by the founders during this development phase, and no overhead charges will be imposed on the project. At the completion of the test and evaluation period, the venture will be converted into a public stock offering or private placement arrangement for the additional funds required to put the FCM Device into production and marketing world wide.

Venture Capital Fair '83

THE PEOPLE

The venture will be managed by a group of competent and experienced individuals dedicated to its success: Messrs. Per A. Holst, Paul T. Cody, and William C. Cody. These individuals have extensive experience in managing the technical, marketing, sales, and financial aspects of high technology products, and provide senior professional insight relating to microprocessor-based products, IV Therapy and Parental Nutrition applications, and the broad needs of a number of flow control and monitoring areas.

Mr Per A. Holst serves as Chairman of the Board, President, and Chief Executive Officer. Prior to joining this company Mr. Holst has been with the Foxboro Company for more than 16 years in various responsible research and development management positions. In 1975 he was promoted to Senior Research Manager of the Foxboro Company, a Fortune-500 manufacturer of high technology products and systems for the industrial process control market. In his research manager position Mr Holst was responsible for all research operations, i.e. budget, space needs, capital assets, and research staff assignments, gaining valuable insight into state-of-the art instrument design and development.

In 1980 Mr Holst was promoted to Manager of Information based Engineering and Automation of the Foxboro Company, a position he has held till the present. He is responsible for applications of all kinds of computer technology and information processing systems to the research, development, and engineering functions at the Foxboro Company.

Mr Holst has been a member of the Society for Computer Simulation since 1964; he served as its Vice President 1974-75 and was elected President in 1976. Since 1977 he has been a Director of AFIPS (American Federation of Information Processing Societies) and for the period 1977-81 he served on its Executive Committee. In 1982 Mr Holst was elected to the Board of Directors of the Charles Babbage Institute for the History of Information Processing, and he serves on its Program Committee and chairs its Technical Advisory Committee.

Mr Holst holds a M.S.E.E. degree from the Norwegian Institute of Technology; he has published two books on the literature of computer simulation and over thirty technical articles and professional society papers.

Mr Paul T. Cody serves as Vice-President of Marketing as well as a Member of the Board of Directors. For the past six years Mr Cody has been with RETICON, a division of E.G. & G., as Sales Manager of the Eastern Region. During the last twenty years Mr Cody has been employed in various positions performing sales, marketing, and market research and management functions.

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Prior to joining E.G. & G. Mr Cody was Marketing Manager with Microsensors, Inc. for four years, a manufacturing company with microprocessor-based instruments utilized in the textile industry. Mr Cody was General Manager for Special Systems for Reliance Electric's Corporate Computer Systems Group for five years, marketing computers and high technology instruments and systems. Mr Cody has also held marketing management and market research positions with the Raytheon Corporation (a large military industrial electronics company), Beckman Instruments (world known manufacturer of instruments and measuring devices of high technology nature). During his association with Beckman Instruments Mr Cody was specifically involved with the marketing functions in the medical computer systems group.

Mr Cody holds a B.S. degree in Engineering and Management from Merrimack College.

Mr C. William Cody will serve as Manager of Sales Activities
Mr C. William Cody (brother of Paul T. Cody) holds a B.S. degree in Business Administration from Merrimack College. He has attended the Marvin Rafel School of Field Management and has received the Blake and Mouton Certificate of Management Productivity and Effectiveness.

Mr Cody is a member of the N.I.T.A. (the National I.V. Therapy Association) and has strong personal ties with the American Association of I.V. Therapy. For over twelve years Mr Cody has been involved with the sales and management of sales of hospital pharmaceuticals, nutritionals, high-powered nuclear sources and storage units, and particularly, for more than ten years Mr Cody has been directly involved with the marketing and sales of products of the intravenous solutions industry.

Mr C. William Cody has extensive experience in field sales management. Among his many accomplishment is the move of the New England sales region from a position of thirteenth to be Number One in the United States.

Professional Services

The management team will be assisted by renowned council and advisory services in the greater Boston area:

Mr Alan Goldstein of Touche Ross is the financial adviser to Microflow, Inc. and will advise the Company in its fiscal matters, accounting, auditing, etc.

Mr Irving M. Heller of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. has assumed the responsibilities for legal council for Microflow, Inc. and will offer advice and counseling in all matters pertaining to incorporation, registration, investment relationships etc.

Mr Charles Hieken of Charles Hieken, Inc. serves as the patent lawyer for Microflow, Inc.

UNITED WORD PROCESSING, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: United Word Processing, Inc.

ADDRESS: 129 Middlesex Turnpike, Burlington, MA 02803

PHONE: (617) 229-6111

EXECUTIVES IN ATTENDANCE: Victor Yuan

MAJOR COMPANY PRODUCTS:

- 1) Word Processing curriculums on WANG, IBM and Digital.
- 2) Computer based, interactive, audio-visual, word processing training software (still in R&D)

NUMBER OF YEARS IN BUSINESS: One year

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

4 full time - 4 part time

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$5.6 billion	\$8.7 billion	\$12.5 billion
Firms Expected Share of Market \$	\$2.8 million	\$7.5 million	\$11.8 million

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales			\$225,000	\$540,000	\$1.4 million
- % pre-tax profit of sales	25%				
- Total liabilities	\$101,000				
- Tangible net worth	\$185,000				
- How much capital requested?	\$200,000				
- How will financing be used?	See attached detail sheet				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

The Company

United Word Processing, Inc. (UWP) was established one year ago in Burlington, Mass., right in the heart of the high-tech community. Taking the field of office automation as the area of focus, UWP provides the Rt. 128 and Greater Boston population in word processing training & consulting; data processing application programming on WANG & IBM.

UWP maintains a training school that is licensed by the state of Mass and certified by WANG. It conducts ongoing word processing training classes in the training school which houses 10 WANG word processors and computers.

The Product

UWP is currently developing a computer program that will train students interactively through the WANG computer and audio cassettes how to become successful word processing operators. There is no such product available on the market right now.

With the large number of people in offices needing word processing training, the cost of sending them to school is quite significant for a company with a large office staff. UWP's self-paced package is just what is needed to satisfy the training needs of these companies. The cost of UWP's package is only what it takes to send three people to a regular word processing class.

The estimated time to complete the project at UWP is three months. The requested financing will be used in the following ways:

1) R & D	\$65,000
2) Documentation	\$ 6,000
3) Advertising	\$30,000
4) Marketing/Selling	\$25,000
5) Working Capital	\$40,000
6) Reserves	<u>\$34,000</u>
Total	\$200,000

The Market

The entire word processing marketing size is projected at \$5.6 billion for 1983. (I.D.C. report) WANG's market share is projected at 31%, or \$1.8 billion for 1983. (WANG) The initial target market for UWP is the entire WANG's customer base. UWP has compiled a partial list of 10,000 names in this user group.

The expected sales revenue for the proposed package during the first year is \$540,000; the following year at \$1.4 million.

Venture Capital Fair '83

SUPPORT DOCUMENTS

PERSONAL DATA SHEET

NAME: Victor Yuan

ADDRESS: 15 Adams St. Somerville, Mass. 02145 **TEL:** 628-9843

BUSINESS ADDRESS: United Word Processing, Inc.
129 Middlesex Turnpike
Burlington, Mass.

EDUCATION: M.I.T. Sloan School of Management; Cambridge, Mass.
1973-1975; M.B.A.

Clark University; Worcester, Mass.
1977-1979; Evening Business Courses.

Northeastern University; Boston, Mass.
1967-1972; B.S.E.E.

WORK EXPERIENCE: United Word Processing, Inc.; 1982-Present; President and CEO
WANG Labs, Inc.; Lowell, Mass.
1980-1982; Title: Marketing Manager; System House Marketing Group.

Digital Equipment Corporation; Maynard, Mass.
1977-1980; Title: Product Manager; Terminals Group.
Title: Senior Education Specialist; Customer Training Department.

Baird Corporation; Bedford, Mass.
1975-1977; Title: Manager of International Field Engineering; Spectrochemical Products Group.

MANAGEMENT EXPERIENCE:

While at Digital Victor held two positions. The first being an instructor responsible for training customers on the PDP computer systems operations. He learned at that job how to train customers, how to work with them and how to satisfy their demands. He also learned the techniques of taking a set of course objectives and formulating a lesson plan from it, and teaching from it afterwards. He became a well experienced instructor. Consequently, if push comes to shove, he can fill in for the instructors at United Word Processing, Inc. without any difficulty.

MANAGEMENT EXPERIENCE...Cont.

Later on Victor moved to a Product Manager's position responsible for PDT11/150 series of computers at Digital. It is at this position that he developed his sense of salesmanship and the art of negotiating with people. His daily contact includes not only the people internally such as designers, engineers, shipping clerks, and vice presidents, but also the people externally such as potential customers, parts suppliers, and advertisers, etc.

He played the role of an entrepreneur with the responsibility to get his product off the ground and keep it flying high. He loved that entrepreneurial role. PDT11/150 evolved to be one of the most successful products at Digital.

During his two years at WANG Victor's instinct as an entrepreneur got even more finely tuned. As a marketing manager for WANG's System House Marketing Group, he worked full time with third party vendors to promote WANG's products. Some of them are well established large corporations, while others are small one-man shops just getting started.

By interacting with these start-up companies, he has experienced first hand how it is like to start up a new business, and what are the potential problems that might befall a small firm. He suffered along with the owners of these small firms the agonies that is associated with the typical start-up firms. He celebrated with them at their triumphs. He has learned by osmosis how to recognize and anticipate the problems before they occur.

In addition, during the past two years Victor has built up a good rapport with the people within WANG, the type of people who are willing to offer assistance and support when needed. It is for this reason that we are able to count on customer referrals from WANG for training.

COMMITMENT TO THE COMPANY

Victor has just quit his job as a marketing manager at WANG. From now on he will devote full time to the operations of United Word Processing, Inc. He has also sold his house. The total sales proceeds is going into United Word Processing, Inc.

He is totally committed to United Word Processing, Inc. He believes in the company, and he will put in 110% of his efforts to make it successful.

Venture Capital Fair '83

TRADE, PROFESSIONAL OR CIVIC MEMBERSHIPS AND ACTIVITIES:

- 1) American Management Association; member.
- 2) Toastmasters International; treasurer.
- 3) Chinese-American Civic Association; member.

HOBBIES, INTERESTS, OTHER RELEVANT INFORMATION:

- 1) Active member of TENNIS 128; participates in the "Early Bird" program every morning.
- 2) Active member of the Chinese Intercollegiate Choir of Boston.

RESUME OF
ANDREW T. CHAPMAN
57 CRESCENT STREET
SWAMPSCOTT, MA 01907
595-7371

EDUCATION: 1970-1972 AS North Shore Community College
Major: General Studies
Graduated Cum Lauda

1972-1975 BS Salem State College
Major: Mathematics/Science
Minor: Computer Science/Education
Graduated Cum Lauda

1975-1976 MS Boston University
Major: Computer Science
Minor: Education
Graduated Magna Cum Lauda

1977 Accepted as Doctoral Candidate
Boston University

LANGUAGE EXPERIENCE

COBOL, Fortran, BASIC, BAL, OS, DOS, VSAM,
Easytrieve, GCOS, GMAP, SPSS, CICS

HARDWARE EXPERIENCE

IBM 370/148, IBM 3033, CDC 6400,
Honeywell 66/80, WANG VS, Datapoint

WORK EXPERIENCE

9/1976-12/1976 Instructor Salem State College
Developed and taught courses in Computer
Science.
Helped to develop the curriculum leading to
a degree in Computer Science.

1/1977-9/1977 Associated Catholic Hospitals
Worked as a programmer, developed a payroll
budgeting system for ten hospitals.
Performed necessary maintenance on various
programs as the need arose.

Venture Capital Fair '83

9/1977-3/1979 Blue Cross of Massachusetts
Programmer/Analyst, main responsibilities
were to develop an innouse Data Processing
Training program. Also developed an intern-
ship program with various state and local
colleges.

3/1979-8/1980 Polaroid Corporation
Senior Programmer/Analyst, mainly responsible
for the Panel Inventory Tracking System.
This survey system would forecast sales based
on the sell through rate by tracking current
dealer inventory. Manufacturing was directly
tied to this system. Also developed and
maintained various systems as the need arose.

8/1980-Present Wang Education Group
Manager, Customer Education
Responsible for developing and scheduling
of courses to be taught on the VS product
line. Duties include interfacing with
National Accounts to resolve their
training needs, supporting the needs
of the Area Education Centers, issuing
requests for proposals to vendors for course
development, overseeing development of a
computer based education system,
planning and development as it pertains to
Customer Education. Current teaching
load is approximately 25 percent.
Currently developing a Computer Science
Internship program with various schools
and colleges.

ADDITIONAL INFORMATION

Member Pi Lambda Theta

1978 Taught one semester of COBOL at
Boston State College

9/1979-Present, Adjunct faculty member
Boston University's Metropolitan college
Developed and/or taught the following
courses:

Introduction to COBOL	CS-104
Advanced COBOL	CS-204
COBOL for Programmers	CS-214
Introduction to Computers	CS-101
Introduction to Fortran	CS-102
Computers in Society	CS-500
Systems Analysis	CS-751, CS-752

PERSONAL INFORMATION

Born: February 14, 1948
Health: Excellent
Marital Status: Married with two children
Military Status: Honorable Discharge from
U.S. Navy Reserves
References: Furnished upon request.

Venture Capital Fair '83

ROBERT J. MAGUIRE
6 Westgate Drive, # 203
Woburn, MA 01801
(617) 933-9462

PROJECT LEADER

DATA BASE ADMINISTRATOR

SUMMARY OF QUALIFICATIONS

Over eleven years experience in Applications Programming, including...

- . Tax Applications, Statistical & Financial Analysis, Payroll, Accounts Payable & Receivable, On-Line Order Entry System, Technical Problem Analysis.
- . Design and implementation of "one man" projects from inception to completion within given time frames.
- . Good inter-personal skills - Complete responsibility for the training of Junior Programmers.
- . Independent initiator.

HARDWARE: Itel 158, Magnuson MA80, IBM.370/148
 IBM 360/40, Honeywell 200, Honeywell 2000

OPERATING ENVIRONMENTS: OS/MVS, DOS/VS, Honeywell OS & DOS

SOFTWARE: COBOL, CICS, IDMS, IDMS-DC, INTERACT, SPM,
 some Assembler

EDUCATION

A.S. Data Processing, 1974
Northeastern University, Boston, MA.

MILITARY SERVICE

U.S. Air Force
Digital Communications

PERSONAL

Date of Birth: December 8, 1951
Single
Height: 5'7" Weight: 155 lbs
Excellent health

Venture Capital Fair '83

SUMMARY OF EMPLOYMENT

Apr 80-Aug 81 CULLINANE DATA BASE SYSTEMS, Westwood, MA.

Development & Marketing of Software Packages

APPLICATIONS PROGRAMMER 3/81-7/81
Sales Forecast System

Installed McCormack & Dodge G/L System using VSAM files.

TECHNICAL SUPPORT SPECIALIST 4/80-3/81
IDMS-DC Group

Determined and solved problems in support of an on-line environment, heavy user contact.

Nov 76-Apr 80 UNITED CARR, Div. of TRW, Burlington, MA.

Manufacturer of small metal stampings

PROGRAMMER ANALYST
DOS, CISC, IDMS, SPM, DYNAM-D

Maintained payroll, accounts receivable & payable systems.

Designed systems for sales and pricing analysis.

Special project: Completed an on-line database system for order-entry including parts inventory and customer name & address maintenance.

Nov 73-Nov 76 MASSACHUSETTS DEPARTMENT OF EDUCATION, Boston, MA.

SENIOR PROGRAMMER
Honeywell DOS & OS

Maintained and enhanced the Teacher Certification System.

Edited, verified and analysed the financial "Cherry Sheets".

Designed and implemented a cost and time saving system for teacher placement.

Nov 71-Nov 73 MASSACHUSETTS DEPARTMENT OF TAXATION, Boston, MA.

JUNIOR PROGRAMMER
IBM 360/40

Sales, Meals and Withholding taxes processing.
Extensive programming in extract and exception reporting.

WINCHESTER SYSTEMS INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Winchester Systems Inc.

ADDRESS: 14 Laurel Hill, Winchester, MA 01890

PHONE: (617) 933-8500

EXECUTIVES IN ATTENDANCE: Joel Leider, President
Jerry Namery, Vice President & Treasurer

MAJOR COMPANY PRODUCTS: DataSafeTM line of Winchester Disk Subsystems and related engineering productivity products. Current application is for Intel microprocessor development systems.

NUMBER OF YEARS IN BUSINESS: One and one half years

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
12 (5 part-time) \$500,000/yr.

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$42,000,000	\$60,000,000	\$80,000,000
Firms Expected Share of Market \$	\$1,000,000	\$6,000,000	\$15,000,000

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales			\$500,000	\$1,500,000	\$3,000,000
- % pre-tax profit of sales			15%	20%	20%
- Total liabilities			\$125,000	\$1,000,000	\$2,000,000
- Tangible net worth			\$30,000	\$175,000	\$475,000
- How much capital requested?	\$500,000				
- How will financing be used?	(see attached)				
- What round of financing is this?	1st _____	2nd <u>X</u> _____	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

WINCHESTER SYSTEMS INC.

Winchester Systems Inc. manufactures and distributes vital microprocessor development tools used by engineers throughout the electronics industry. These tools, comprised primarily of Winchester Disk Subsystems and other peripheral equipment, save the time of the most highly paid, hard to find labor: electronics engineers. The payback to companies for our equipment is typically 3-6 months and always less than a year. Our gross profit margins are typically 50-65% of sales.

Just since May 1982 over 50 systems have been installed, primarily in New England. Our products have found overwhelming acceptance in many of the Fortune 500 companies as well as aggressive startups and medium size companies.

We are now expanding nationwide. Our plans call for developing a direct sales force of 12 people in strategically located regions covering 80% of the potential domestic market. The effectiveness of direct sales has been demonstrated by the two present salesmen in New England. International markets can increase the company's potential by an estimated 15-20%. One system is already installed at the largest computer company in Brazil.

New equity funding of \$500,000 will be used for working capital; for recruiting, equipping, training and managing the new sales force; and for further research and development.

Venture Capital Fair '83

Winchester Systems is currently operating with two key individuals, Mr. Leider and Mr. Namery. A summary of their background is given below:

Joel Leider

Mr. Leider was employed by Teradyne, Inc. from 1974 to 1981.

During that period Mr. Leider initiated and introduced several commercially successful products. Most recently, he was Engineering Manager of the group which developed Pascal/STEPS operating system for the A300 Analog LSI Tester. Over 200 systems - worth over \$40 million - have been shipped with this software. Other successful products include L125 Printed Circuit Board Tester, M150 Automatic Circuit Board Prober, and W411 RapidTrim Software for resistor laser trimming.

Mr. Leider developed these products and managed them until significant market penetration was achieved. In his most recent position as Manager of the A300 Software Group, Mr. Leider recruited a team of 22 highly talented engineers, organized engineering and marketing efforts, ran an international applications symposium, supervised documentation and trained an entire \$50 million division and it's sales force.

In addition, Mr. Leider spent 2 years organizing a revenue generating field-service organization for a \$500 million installed base of test equipment.

Mr. Leider received a BS in Electrical Engineering from New York University, an MS in Computer Science from Rensselaer Polytechnic Institute and an MBA in Marketing and Finance from Boston University.

Jerry Namery

Mr. Namery has been a consultant to the computer industry since 1977. He developed these products: a programmable motion controller for factory automation at Modicon, a high-level language and operating system for Analog LSI Testing at Teradyne with Mr. Leider, diagnostics for a new line of memory products at DEC, and a ground control station to test satellites before launch at Spacetac. Prior to consulting, Mr. Namery spent 4 years with American Optical Medical Division as Senior Systems Engineer where he developed a computerized patient monitoring system and co-managed the OEM systems operation.

Mr. Namery was instrumental in developing the above products from initial conception through customer acceptance, including creating an organization to market, produce, and service these products. Each innovation has captured a major share of it's market, returning between \$1 million and \$20 million in annual sales.

Mr. Namery received both Bachelors and Masters degrees in Electrical Engineering from M. I. T. in 1973.

WINCHESTER SYSTEMS INC.

Winchester Systems Inc. manufactures and distributes vital microprocessor development tools used by engineers throughout the electronics industry. Electronics engineers use these tools to save significant amounts of time. The payback to companies using our equipment is typically 3-6 months.

Our products have found overwhelming acceptance in many of the Fortune 500 companies as well as aggressive startups and medium size companies.

Here are some of our customers and their applications:

ADT/N.E.R.L.
Advanced Security Systems

ANALOG DEVICES
Data Acquisition Computer

AVANTI COMMUNICATIONS
Local Area Networks

AZONIX
Computational Controller

BAUSCH & LOMB
X-Ray Analyzers

CGX
CAD/CAM Displays

CINCINNATI MILACRON
Programmable Grinding Machinery

COMPUGRAPHIC
Typesetter Test Equipment

CONCORD DATA SYSTEMS
Micro-based Modems

DANIEL INDUSTRIES
Oil Exploration Equipment

DIGITAL EQUIPMENT CORP.
DECmate Personal Computers

DYNAMIC RESEARCH
Precision Positioning Machinery

ELSCINT INC.
Digital Medical Imaging

FOXBORO ANALYTICAL
Gas Analyzers

FOXBORO COMPANY
Process Control Systems

GENERAL ELECTRIC
Gas Turbine Controllers

HARRIS CORP.
Printing Press Controllers

INSTRUMENTATION LABS
Clinical Analyzers

KOLLSMAN INSTRUMENTS
Aeronautical Instrumentation

LASER IDENTIFICATION SYSTEMS
Laser Marking Equipment

MICROCOMPUTER SYSTEMS
Contract R&D

MODDATA
Mainframe Peripherals

NAVAL AIR DEVELOPMENT CENTER
Aircraft Systems

NEC ELECTRONICS USA
Multibus CPU Board

NEC INFORMATION SYSTEMS
Spinwriter Diagnostics

NEIL BROWN INSTRUMENTS
Oceanographic Instrumentation

NIXDORF COMPUTER
Mainframe Peripherals

PARKS CRAMER
Textile Processing Equipment

RIKAL TERMINAL SYSTEMS
Point-of-Sale Terminals

SANDERS ASSOCIATES
Defense Systems

SENTINEL TELECOMMUNICATION SYSTEMS
Energy Management Systems

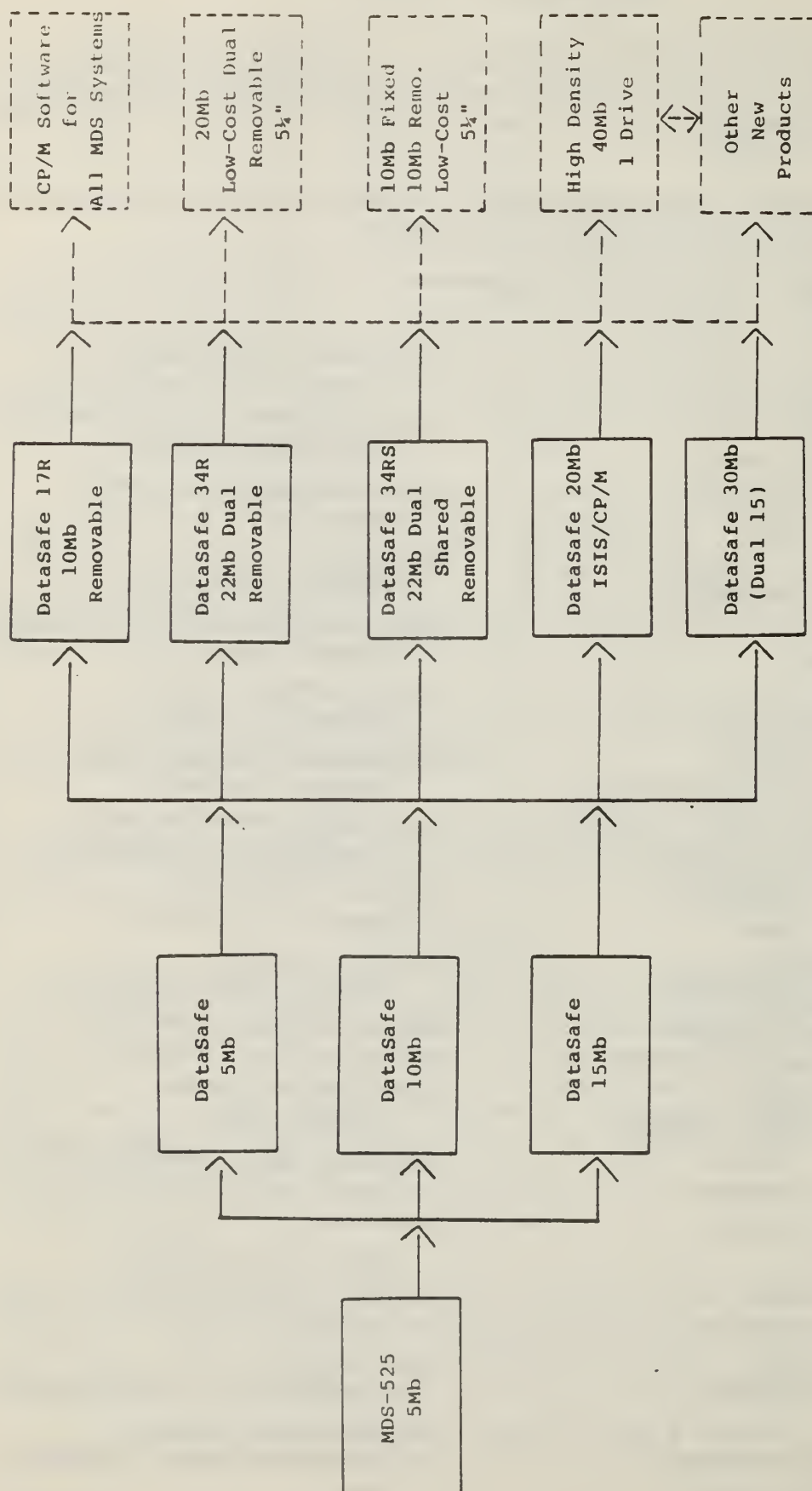
3M
Electro-Optical Systems

TELETEX COMMUNICATION CORP.
Intelligent Terminals

USM CORP.
Computerized Stitching Equipment

WANG LABORATORIES
Telecommunications Diagnostics

WINCHESTER SYSTEMS' PRODUCT FAMILY



June 1983

Jan 1983

Sept 1982

April 1982

WINDOW, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Window, Inc.

ADDRESS: 469 Pleasant Street, Watertown, MA 02172

PHONE: (617) 923-9147

EXECUTIVES IN ATTENDANCE: Henry F. Olds, Jr.

MAJOR COMPANY PRODUCTS: educational software; currently our primary product is WINDOW, a bimonthly magazine on a disk with a focus on learning. WINDOW combines the format and frequency of periodicals with the interactive nature of software.

NUMBER OF YEARS IN BUSINESS:

18 months

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

9 \$70,000

MARKET DATA:

	1 year	3 years	5 years
Industry Market Size \$	216 million	1.296 billion	2.160 billion
Firms Expected Share of Market \$	4.32 million	21.6 million	34.56 million

FINANCIAL DATA:

	2 years ago	last year	current	projected 1 year	projected 2 years
- Gross sales	-	-	\$70,000	\$975,000	\$2,330,000
- % pre-tax profit of sales			0	0	25%
- Total liabilities					
- Tangible net worth			\$180,000		
- How much capital requested?			\$360,000		
- How will financing be used?	to launch an aggressive retail store/direct marketing campaign.				
- What round of financing is this?	1st _____	2nd <u>X</u>	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

COMPANY HISTORY

Window, Inc. was incorporated in September, 1981 as an integrated software development and publishing company dedicated to developing the vast market and creative value of modern technology for education. The first six months of operation were spent researching the size and demands of this market, and developing a product to which consumers in the education and home markets will respond.

The leader of our product line, WINDOW, was launched in May, 1982. WINDOW is a new communications concept -- an electronic magazine. The magazine is "read" by placing the disk in the computer's disk drive and turning on the computer. A dynamic "dialogue" then begins between the magazine and the user. Combining text, pictures, programs, music and animation, the dialogue is both entertaining and educational.

WINDOW allows microcomputer owners, whether parents or teachers, to learn to use their computers. And it provides them with a growing collection of tools and the knowledge of how to put those tools to work.

Published five times per year, WINDOW is presently available for the Apple computer (Apple has the largest user base of disk-operated computers). A version of WINDOW will be published for the IBM Personal Computer in September and a Commodore 64 version will follow soon after. Atari and TRS-80 versions are also planned.

WINDOW is designed to be both an end in itself and a means to establish Window, Inc. as a leader in software publishing. As a software periodical, WINDOW is a unique marketing and distribution concept that facilitates both the selling and acquisition of software.

As a periodical, WINDOW is easier to market because the lower per-issue development cost allows us to spend a greater proportion of our income on marketing and promotion. The lower cost also opens the possibility of special promotional deals using an issue of WINDOW as a premium. Record-ers provide the basis for a healthy profit margin over time.

Over the summer we evaluated consumer response to WINDOW and began work on an expanded and more technically sophisticated second issue. Vol. 1, No. 2 was published in October. Our third issue will be published April 15.

Test marketing during 1982 confirmed the viability of WINDOW as a product and the strength of the market for it. To date, WINDOW has produced gross sales of \$70,000 from a controlled test of advertising and direct-mail markets.

We are currently in the process of implementing an aggressive retail store campaign that will coordinate diverse groups of distributors, educational and general interest catalogs, and several large retail store chains.

PRINCIPALS OF CORPORATION

Henry F. Olds, Jr., Chief Production Officer and Copublisher/Editor of WINDOW.

Henry Olds received his Ed.D. from the Harvard Graduate School of Education in children's language development (psycholinguistics). While there, he was Executive Director of a major group of projects under the Research and Development Center and served on the editorial board of the Harvard Educational Review.

Olds has had major editorial responsibility for films and print publications in education. He helped to organize and found two nonprofit educational institutions and has served on boards of several others. While Director of Planning for an architectural firm, he planned and budgeted several educational building projects. He also founded a retail sales company and has managed his own educational design and consulting firm.

Olds recently completed a study of the educational uses of microcomputers ("People and Computers: Who Teaches Whom?"), which was funded by Control Data Corporation. He has also consulted with Mattel Toy Company on software development for The Children's Discovery System (a computer for children). As a research associate with the Cognitive Research Group at Education Development Center (EDC), he established a national computer research network (Project INTER) and worked on a National Science Foundation--funded project developing materials (both text and software) to help students learn to solve word problems (SemCalc).

Over the past two years, Olds has written extensively on the use of computers in education and has delivered several major speeches at educational computer conferences. He has recently completed the lead article for a federally funded and nationally distributed monograph on software evaluation.

Olds recently resigned from positions as Editor of CLASSROOM COMPUTER NEWS, a leading educational computing publication, and as Director of the Advisory Training Program for International Educations, Inc. to devote his full time to Window, Inc.

John Richards, Chief Executive Officer and Copublisher/Editor of WINDOW.

John Richards received his Ph.D. in logic and philosophy of science from State University of New York (SUNY) at Buffalo (1971) with a graduate minor in computer science.

Richards was on the faculty of the Division for Study and Research in Education at Massachusetts Institute of Technology. He has taught at the University of Georgia and SUNY at Buffalo.

Venture Capital Fair '83

For the past six years, he was a principal investigator in two major National Science Foundation grants, to research the construction of whole number concepts by children. He has coauthored CHILDREN'S COUNTING TYPES (Praeger Press, 1983), reporting the results of this research.

Richards has more than 15 years research and teaching experience in the fields of education, computer science, mathematics and philosophy. In addition to more than 30 published articles, he edited a book on science and public policy. RECOMBINANT DNA: SCIENCE, ETHICS AND POLITICS (Academic Press, 1979), and is currently coauthoring COMPUTERS AND MATHEMATICS, a book on using microcomputers in teaching mathematics (Addison-Wesley 1983).

In June, Richards completed his research and left his position at MIT to devote his full time to Window, Inc.

UPDATED INFORMATION ON PAST PRESENTING COMPANIES

INCONIX CORPORATION

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Inconix Corporation

ADDRESS: 10 Tech Circle, Natick, MA 01760

PHONE: (617) 655-1170

EXECUTIVES IN ATTENDANCE: Alphonse J. Vitale, President
Barry J. Kover, Vice President

MAJOR COMPANY PRODUCTS: Industrial Microcomputer for Harsh Environments

NUMBER OF YEARS IN BUSINESS: In operation since January 1982

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)

47

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$70,000,000	\$170,000,000	\$350,000,000
Firms Expected Share of Market \$	5%	10%	15%

<u>FINANCIAL DATA:</u> (\$ in thousands)	<u>2 years ago</u>	<u>9 Mos. Ended 9/30/82</u>	<u>projected 9/30/83</u>	<u>projected 9/30/84</u>	<u>projected 9/30/85</u>
- Gross sales	N/A	\$1,083	\$3,500	\$8,000	\$17,000
- % pre-tax profit of sales		0	7%	16%	20%
- Total liabilities		\$976	\$1,882	\$1,492	\$2,182
- Tangible net worth		(376)	(747)	\$1,377	\$3,097
- How much capital requested?			\$750		
- How will financing be used?		Working capital for growth			
- What round of financing is this?	1st _____	2nd <u>X</u>	3rd _____		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

The Inconix Story

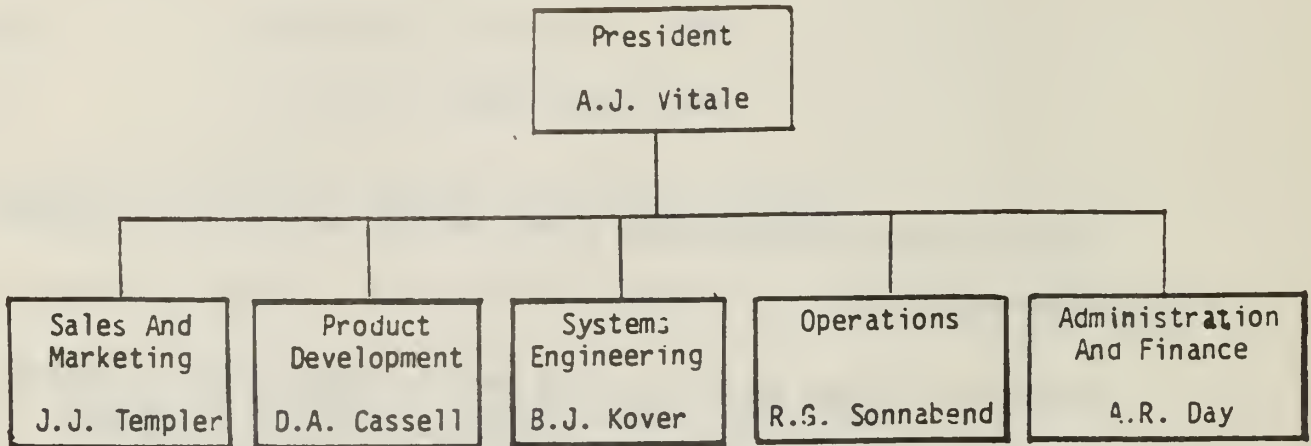
Inconix Corporation was founded in May 1981 by the operating management of Control Logic, Inc.

On January 15, 1982 Inconix acquired certain product lines of Control Logic, Inc. The products acquired were the CINCHTM line of Industrial Control Computers and Multi Loop Controllers as well as the microcomputer and micrologic modules and systems sold under the Control Logic brand name. As a result of the transaction, Inconix acquired all product designs, order backlog and trade names, certain fixed assets and inventory, as well as the management and personnel related to the product lines.

We acquired the rights to the Control Logic brand name and the familiar CL logo and continue to use them in order to convey to our customers the continuation of the high standard of product quality and in-depth knowledge of industrial control applications that they have come to expect over the past twenty years.

ORGANIZATION AND MANAGEMENT

Organization



Management

Al Vitale - President

Education: B.A. Economics (honors), MBA Boston College

Previous Experience: Financial Management and General Management with Raytheon, Baird Atomic and Bush Transformer Corporation

Joined Control Logic, Inc. as Controller in 1968...became Vice President Operations in 1969...President in 1972...initiated entry into microcomputers...substantially increased business with Harnischfeger...tripled sales...turned Company from consistent losses to consistent profits...took Company into process control market...negotiated buy out arrangement with Harnischfeger.

Jerry Templer - Vice President Sales and Marketing

Education: BSEE Iowa State; MS Engineering Management, University of Missouri

Previous Experience: Design Engineer, Emerson Electric; Computer Sales, NCR. In nine years with Accuray progressed from Account Salesman to Sales Manager to Regional Manager of Accuray's largest region with a consistent record of exceeding sales goals at every level.

Joined Control Logic, Inc. in June of 1981 as a result of an extensive search for the right individual to manage the CINCH sales program. He is well founded in the engineering principles of computer technology and highly knowledgeable in the application of that technology to process control requirements.

TRUCK & TIRE SERVICE, INC.

Venture Capital Fair '83

FIRM DATA FORM

NAME OF COMPANY: Truck & Tire Service, Inc.

ADDRESS: 211 Everett Avenue, Chelsea, MA 02150

PHONE: (617) 884-8555

EXECUTIVES IN ATTENDANCE: Abraham Baron, President
John O'Callaghan, Controller

MAJOR COMPANY PRODUCTS: Emergency road service and related products supplied to the trucking industry throughout 25 states. Is, in effect, the "AAA" for the trucking industry.

NUMBER OF YEARS IN BUSINESS: 10 years

SIZE OF THE ORGANIZATION: (Number of Employees and Volume of Sales)
20 3 million annual

<u>MARKET DATA:</u>	<u>1 year</u>	<u>3 years</u>	<u>5 years</u>
Industry Market Size \$	\$300 million	\$330 million	\$400 million
Firms Expected Share of Market \$	1.25%	1.75%	1.9%

<u>FINANCIAL DATA:</u>	<u>2 years ago</u>	<u>last year</u>	<u>current</u>	<u>projected 1 year</u>	<u>projected 2 years</u>
- Gross sales	\$2,040,000	\$2,591,000	\$2,900,000	\$3,950,000	\$4,750,000
- % pre-tax profit of sales	3.6%	3.4%	4.2%	5.1%	6.7%
- Total liabilities	\$542,000	\$521,000	\$580,000	\$576,900	\$461,800
- Tangible net worth	\$124,000	\$182,000	\$274,600	\$402,100	\$562,000
- How much capital requested?	\$1,000,000				
- How will financing be used?	To expand services nationally, establish franchise, membership and mortgaging programs and working capital.				
- What round of financing is this?	1st <u>X</u>	2nd <u> </u>	3rd <u> </u>		

Please submit a brief company history including bibliographical information or resumes of the principle people in the firm.

THE COMPANY

Truck & Tire Service, Inc. provides emergency road service and related product to owners of trucks, tractors, and trailers which become disabled on the nation's roadways.

The service is provided 24 hours a day, 365 days a year, through a network of independent service persons who are strategically located throughout the 22 states in which the company presently offers service.

The company presently maintains inventory at 60 locations throughout the Northeast section of the country.

The company is to the trucking industry what the "AAA" is to the automobile owner except the company does not charge annual dues and all calls for emergency service are directed to and controlled from central headquarters.

The company provides centralized credit, customer service, computerized billing and maintains a history of every job for its customers.

Reliability of service is well proven, as the average time from "call time" to the time the vehicle is repaired and rolling averages under 2 hours on the last 64,000 jobs completed by the company.

The company services, among others, many of the larger leasing companies, private carriers and common carriers through direct corporate charge accounts. It also offers service on a VISA, Mastercard, or American Express basis for those who do not maintain a corporate charge account.

The company was incorporated in 1972 in the Commonwealth of Massachusetts. The National Corporate offices are located at 211 Everett Avenue, Chelsea, Massachusetts. Telephone (617) 884-8555.

THE UNITED STATES MARKET AND THE COMPETITION

According to a recent Census published by Automobile Manufacturers Association, there were more than 30,000,000 trucks registered in the country.

Truck & Tire Service, Inc. does not meet in head-on competition with any tire company, because no other tire company specializes in road service or road sales. In fact, TTS has worked along with tire dealers as well as with major rubber companies (Goodyear, Firestone, etc.) in the northeast region.

TTS has not created the need, rather, they are filling the need created by the major tire companies in the United States. Acceptance by the trucker of the services rendered by TTS is immediate. Our cost cutting and time saving organization enables the necessities of life to move freely, safely and less costly. TTS compliments existing tire companies thereby creating a desire on their part to use the services afforded. This non conflicting policy enables Truck & Tire Service, Inc. to offer tire companies 24 hour coverage for their customers in the areas covered by TTS. Working on the representative concept, good knowledgeable TTS personnel will be secured to form a continuous chain of Truck Tire Service coast to coast. With over 30 million trucks registered in the United States the need for good efficient truck tire service on a nationwide basis is not only required but essential to the growth of our economy.

TRUCK & TIRE SERVICE, INC. AND OPERATIONS

Typically, tires have been sold through distributors who provide emergency service to their accounts within a 25 mile radius of their sales base. Generally, their service has been available during only normal business hours, during which employees are diverted from sales or maintenance to provide road service for this central location.

Truck & Tire Service, Inc. is geared to provide road service for truckers 24 hours a day, every day of the year and over a wide geographical territory. At the present time emergency road service is available to truckers from Maine to Florida and westward through Ohio.

Truck & Tire Service, Inc. can accomplish this because it operates with a fleet of radio-dispatched trucks, most of them operated by TTS' representatives.

All service is geared to one central phone number, 800-225-3565. This phone number is presently known to over 2,500 firms throughout the country.

In many instances, TTS' phone numbers (stickers) are posted in the cabs of the trucks, and at the truckers' terminals. In the event of a breakdown, TTS' communication system can contact and dispatch a completely equipped mobil tire shop immediately, resulting in on the spot service within 45 minutes.

TTS further maintains inventory in locations throughout New England, New York, New Jersey, Ohio, Pennsylvania, Maryland, Delaware and Virginia.

Each of the representative's vehicles carries tires and tubes of the most popular sizes for speed and efficiency.

All sales are made from the central Chelsea base. This includes billing, customer service, credit and collections.

A major advantage of the Truck & Tire Service, Inc.'s operation is the added personal productivity derived from the representative, not employee relationships.

Truck & Tire Service, Inc.'s goal is not only to serve its own growth but to secure the truckers' profitability in minimizing downtime.

In conclusion, the need is there for Truck & Tire Service, Inc.; the trucking industry benefits by the program; the country will save fuel thereby conserving on vitally needed energy; and most importantly, the consumer will be served efficiently and more economically.

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THE MASSACHUSETTS DEPARTMENT OF COMMERCE

THE MASSACHUSETTS COMMERCE DEPARTMENT is a key agency in state government's economic development efforts and as such, it provides technical and promotional assistance to business, industry, and economic development organizations through a wide variety of programs and services. A staff of professional field representatives is available to give you assistance or information on financing mechanisms, tax incentives, manpower training, or any other governmental program that affects your business or region. Business, industry, and economic development groups are encouraged to use the Commerce Department's services by calling the CALL ONE toll-free number (1-800-632-8181).

BUSINESS DEVELOPMENT GROUP (617) 727-3214: Responds to new business development opportunities, problems, and questions through personal assistance and specialized research. Also attempts to resolve programs faced by new and/or expanding businesses.

BIOMEDICAL PROJECTS (617) 727-3210: Encourages the growth of the biomedical industry in Massachusetts.

SMALL BUSINESS ASSISTANCE DIVISION (617) 727-4005: Provides an informational exchange to small business. Takes an advocacy role on issues relevant to small business and administers the Small Business Purchasing Program and the Small Business Advancement and Identification Program (MASSBAI). It also coordinates and supports the Governor's Small Business Advisory Council and the Women's Enterprise Advisory Board.

BUSINESS SERVICE CENTER (617) 727-3212: Researches questions on employment statistics, demographic information, tax comparisons. Also fills requests for publications for businesses and government agencies.

OFFICE OF FINANCIAL DEVELOPMENT (617) 727-3048: Provides financial assistance to companies in the areas of marketing operations and sales by dispensing information on financial sources, advises firms seeking capital, acts as a liaison with the financial community, evaluates proposals for financing, structures packages and negotiates financing for client companies. The office also sponsors seminars for bankers and development organizations and biannual Venture Capital Fairs.

MANPOWER DEVELOPMENT (617) 727-3210: Assesses manpower needs and problems for companies requesting assistance. Provides detailed information about state and federal tax credits.

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STATE OFFICE OF MINORITY BUSINESS ASSISTANCE (617) 727-8692: Assists in the development of minority and women-owned business through educational programs and seminars. Works with state agencies to insure minority and women-owned businesses' participation in the state procurement process.

TOURISM (617) 727-3201: Promotes a positive image of Massachusetts through advertising and publicity. Provides visitor services through information centers and publication distribution, gives assistance to travel industry organizations, and administers the matching grant program to regional tourist organizations.

FILM BUREAU (617) 727-3330: Promotes and assists film and video production in the Commonwealth. Provides economic opportunities to local individuals and businesses by marketing the state as a desirable location for filming.

THE OFFICE OF PUBLIC INFORMATION (617) 727-3232: Is responsible for keeping the public informed of the programs, policies and actions of the Department of Commerce through the print and broadcast media, consumer, trade and tourist publications.

NOTE PAGE

New products
create new jobs
and economic prosperity
for Massachusetts.

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